Supreme Court, U.S.
FILED

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No._____

IN THE
SUPREME COURT OF THE UNITED STATES

October Term, 1996

SARALEE BRAUN, as Administrator of the Estate of Norman Braun, Deceased, and Individually,

Petitioner,

v.

LORILLARD, INC. and HOLLINGSWORTH & VOSE COMPANY,

Respondents.

On Petition For Writ of Certiorari to the
United States Court of Appeals for the Seventh Circuit

PETITION FOR WRIT OF CERTIORARI

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QUESTIONS PRESENTED FOR REVIEW

1. Whether the Seventh Circuit's ruling on exceptional circumstances conflicts with the plain language of Rule 26 where the defense obtained facts and opinions on the same subject from its own expert who examined only a minute fraction of the sample that he received, conflicts with case law which uses an equivalent information test, and erroneously defines testing samples as exceptional circumstances?

2. Whether the Seventh Circuit's ruling conflicts with *Daubert* and its progeny by: weighing the reliability of a scientific method, rather than just determining that science was used where organic matter was removed in preparation for examining lung tissue under a transmission electron microscope with confirming energy dispersive x-ray chemical analysis; refusing to admit evidence even though it met the standard of refutability; refusing to admit evidence even though its relevant error rate was zero; requiring more than reasoning to establish the propriety of applying the method to the facts in issue; and misinterpreting what constitutes "general acceptance?"

3. Whether concluding that it was harmless error to refuse to allow redirect questions to directly correct what the Seventh Circuit acknowledges was a "misleading cross-examination" of plaintiff's critical proximate cause witness, violates the standard set by this court in *Kotteakos v. United States* and creates a harmless error standard which disregards the realities of communicating with a jury?

LIST OF PARTIES

The plaintiff is Saralee Braun, as administrator of the Estate of Norman Braun, Deceased and individually. The defendants are Lorillard, Inc. and Hollingsworth & Vose Company.

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PETITION FOR WRIT OF CERTIORARI

The petitioner, Saralee Braun, as Administrator of the Estate of Norman Braun, Deceased, and Individually, respectfully requests that a writ of certiorari issue to review the judgment and opinion of the United States Court of Appeals for the Seventh Circuit, entered in the above-titled proceeding on May 17, 1996, with petition for rehearing with suggestion for rehearing *en banc* denied on June 14, 1996.

OPINIONS BELOW

The opinion of the United States Court of Appeals for the Seventh Circuit is reported at *Braun v. Lorillard, Inc.*, 84 F.3d 230 (7th Cir. 1996), and is reprinted in the appendix at A.1. The opinions of the district court addressing the questions presented by petitioner are reprinted at A.15, 22 and 24, even though the written opinions were issued after the case was on appeal and the district court no longer had jurisdiction.

JURISDICTION

Following a jury trial, the district court entered judgment for the defendants. The Seventh Circuit affirmed the judgment of the district court on May 17, 1996, and denied plaintiff's petition for a rehearing with a suggestion of a rehearing *en banc* on June 14, 1996.

The Court has jurisdiction to review the judgment on a writ of certiorari pursuant to 28 U.S.C. Section 1254.

STATUTES INVOLVED

F.R.Civ.P. 26(b)(4)(B)

> General Provisions Governing Discovery; Duty of Disclosure....
> Discovery Scope and Limits....
> Trial Preparation: Experts....
> (B) A party may, through interrogatories or by deposition, discover facts known or opinions held by an expert who has been retained or specially employed by another party in anticipation of litigation or preparation

for trial and who is not expected to be called as a witness at trial, only as provided in Rule 35(b) or upon a showing of exceptional circumstances under which it is impracticable for the party seeking discovery to obtain facts or opinions on the same subject by other means.

STATEMENT OF THE CASE

Defendant Lorillard, through its predecessor, P. Lorillard, manufactured and sold Kent cigarettes with a filter containing crocidolite asbestos from approximately March, 1952, to May, 1956. Defendant Hollingsworth & Vose, through its predecessor, H&V Specialties Company, manufactured that crocidolite asbestos-containing filter material for Lorillard. An asbestos fiber is microscopically small. Each Kent filter contained tens of billions of crocidolite fibers.

Norman Braun smoked one and a half packs a day of Kent cigarettes with the asbestos filter, beginning in the first year that they were manufactured and continuing thereafter during the time that they were sold. (Mr. Braun stopped smoking entirely in 1968.) In 1993, Norman Braun was diagnosed with mesothelioma, a rare type of cancer caused by exposure to asbestos. Mesothelioma is a cancer of the pleura, the surface lining the lung and the thorax. The tar and nicotine in tobacco smoke do not cause mesothelioma. The mesothelioma killed Mr. Braun in 1995.

About eighty per cent of mesothelioma cases in this country have a known history of asbestos exposure. The other twenty per cent are attributed to an unknown asbestos exposure or to another unknown cause.

The district court had diversity jurisdiction pursuant to 28 U.S.C. Section 1332(a). Plaintiff Norman Braun was

and plaintiff Saralee Braun is a citizen of Illinois. (Prior to his death, Norman Braun was a named plaintiff.) Saralee Braun is the widow of Norman Braun and the administrator of his estate. Lorillard is a New York corporation with its principal place of business in the state of New York. Hollingsworth & Vose is a Massachusetts corporation with its principal place of business in Massachusetts. The amount in controversy, exclusive of interest and costs, exceeds $50,000.00.

Plaintiffs alleged that Mr. Braun's mesothelioma was caused by inhaling crocidolite asbestos that was present in the smoke from the Kent cigarettes. Developing mesothelioma in 1993 from exposure in the 1950s is consistent with the typical latency period of 20 to 50 years between the initial exposure to asbestos and the time when symptoms of mesothelioma begin.

Plaintiff's claims are for personal injury, wrongful death and loss of consortium based on products liability, negligence and wilful, wanton and reckless misconduct. A jury trial was held and the verdict was for the defendants.

In 1954, working separately, two electron microscopists hired as consultants by Lorillard found that asbestos came out of the Kent filter with the inhaled smoke.

There was conflicting expert testimony at trial as to whether asbestos, or a significant amount of asbestos, came out of the Kent filter when it was smoked.

After Mr. Braun died, tissue from his remaining lung was preserved (the other lung having previously been removed because of the tumor) and the district court entered an order that both plaintiff and defendants would receive equal amounts of adjacent samples of Mr. Braun's lung tissue for possible testing. Plaintiff had two non-testifying, consulting experts examine its share of the lung

tissue. Those non-testifying experts were Dr. Roggli and Material Analytical Services (MAS).

Roggli's examination came first and was done with a scanning electron microscope. A scanning electron microscope is not as sensitive for detecting asbestos as a transmission electron microscope (TEM), particularly for detecting crocidolite. Roggli's lab only identified 20 out of the 24,000 fibers it found. None of the 20 were identified as crocidolite.

The total weight of the lung tissue sample analyzed by MAS was 0.0147 grams, but of that sample, less than 1% was actually examined under the microscope. Therefore, MAS actually examined less than 0.000147 of a gram of Mr. Braun's lung. The examination was done using TEM, but most of the examination was at low magnification, rather than at high magnification.

MAS used a detection limit of 250,000 structures per gram of tissue. The higher the limit of detection, the less likely one is to find fibers if they occur at lesser rates. At that detection limit, they found no asbestos fibers. In fact, they found no fibers of any kind. It is possible that MAS did not find any fibers of any kind because of a flaw in the way in which it prepared the tissue for examination or because of the small amount of tissue that it examined.

Asbestos fibers are unevenly distributed through lung tissue. The uneven distribution of asbestos in lung tissue means that there may be no fibers in the specimen that is examined, even though there are fibers elsewhere in the tissue. That uneven distribution and the small size of the sample viewed under the microscope means that chance affects the results of a TEM examination of lung tissue for asbestos. Thus, the results of such a TEM analysis are statistical conclusions, drawn from looking at a small sampling.

At first, the district court ruled that, pursuant to F.R.Civ.P. 26, plaintiff was not required to disclose the results of testing by non-testifying experts. Less than two weeks before trial, as the defense continued to seek that information, the district court stated that it "tended to agree" with plaintiff that the defense did not have a right to such test results.

Shortly before trial, the district court changed its position and granted defendants' motion to compel the production of the tissue test results of plaintiff's non-testifying experts and denied plaintiff's motion to bar references to those non-testifying experts.[1] At trial, the jury was told of Roggli's and MAS's results.

Dr. David Schwartz is a microscopist and is the president of Stat Analysis, an environmental testing laboratory. Examining samples for asbestos, including crocidolite, is about half of Stat Analysis' work. These are usually samples of building materials, air or water. Stat Analysis has analyzed thousands of such samples.
Having met the requirements for quality control and quality assurance, Stat Analysis is accredited by the American Industrial Hygiene Association and by the National Voluntary Laboratory Accreditation program which is part of the National Institute for Standards Technology. The latter certification allows Stat Analysis to conduct TEM analysis for asbestos at schools pursuant to the federal Asbestos Hazard Emergency Response Act. Dr. Schwartz has taught courses on how to conduct TEM examinations for asbestos.

Dr. Schwartz has a bachelor's in biology and a

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1 The district court eventually issued written opinions, but not until it had lost jurisdiction because the case was on appeal before the Seventh Circuit. (*See* A.20, 23 and 34)

Ph.D. in anatomy, and in obtaining those degrees he studied the structure, measurement, histology and microscopic anatomy of lung tissue. After receiving his Ph.D., Dr. Schwartz was involved in several studies of lung tissue and has published on subjects concerning lung tissue.[2] Dr. Schwartz has been an assistant professor of biochemistry at Northwestern University and is presently a visiting professor of biochemistry at Rush Medical School. His work in the biochemistry department at Northwestern involved the preparation and examination of samples by TEM. Dr. Schwartz has been aware of TEM fiber burden analysis of lung tissue for asbestos since the mid-1980s.

In September, 1995, plaintiff's counsel asked Dr. Schwartz to examine a sample of Norman Braun's lung tissue for the presence of crocidolite, and to do so within certain time constraints. Dr. Schwartz agreed to do so. Dr. Schwartz was asked by counsel about the different ways one might prepare the sample for fiber burden analysis without dealing with tissue sections or other more routinely prepared methodology. Dr. Schwartz said that he would use his lab's normal sample preparation methods, whereby the sample was ashed to remove the organic lung tissue so that the remaining material could be examined by TEM for crocidolite, because it allowed a large number of fibers in the lung tissue to be looked at

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2 The Seventh Circuit states that "Dr. Schwartz had never tested human or animal tissues...so far as appears, for anything." (A.5) As set forth above, that is not correct. After receiving his Ph.D. in anatomy, Schwartz conducted research on human tissue, including lung tissue, and he published that research. (T.1011-13)

in a reliable manner.[3] The protocol used by Dr. Schwartz came from the Environmental Protection Agency protocol for examining building materials for asbestos and is routinely used by Stat Analysis for that purpose. (T.1017-1018 and 1045)

Transmission electron microscopic analysis first preliminarily identifies crocidolite asbestos fibers by morphology, its appearance, size and shape, and then uses energy dispersive x-ray analysis (EDXA) to confirm the identification through chemical analysis of the suspected fibers. Identification of fiber type by morphology and chemistry is standard TEM procedure, regardless of whether fibers are in lung tissue, air, building materials, or anything else.

The ashing procedure used to prepare the sample for TEM analysis was not unusual for building materials, but was not very usual for other materials. But, ashing is a generally acceptable method for removing organic material from a sample in preparation for a TEM exam for the presence of crocidolite. Dr. Schwartz knew this from his knowledge of the literature and of chemistry. In a TEM examination for morphology and by EDXA, to determine whether crocidolite is present, it makes no difference whether the sample came from lung tissue or

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[3] The Seventh Circuit erroneously accuses plaintiff's lawyers of suggesting the methodology that Schwartz used. (A.5) As set forth above, that was not the testimony. Counsel did not suggest ashing or any other specific method. Also, contrary to the Circuit Court's misapprehension that the protocol adopted was done so because the results were to be used in litigation (A.7), Dr. Schwartz decided to use his normal method. (T.1016-19 and 1052-53)

building material or air or water.

As is the normal practice at Stat Analysis, the preparation of the sample and the actual microscopic examination was done by Frederick Lov, the senior analyst at Stat Analysis, pursuant to Dr. Schwartz's instructions. Neither Dr. Schwartz, nor Lov, had previously examined lung tissue for asbestos, and Schwartz did not read anything or consult with anyone before instructing Lov on how to proceed. But, Lov had previously examined thousands of samples for the presence of asbestos.

Dr. Schwartz obtained information on what the TEM showed, from having Lov describe his observations and his confirmation with EDXA, as well as from Lov's handwritten worksheets.[4]

Using ashing to prepare the sample of lung tissue did not create a risk of falsely identifying crocidolite, if no crocidolite was present. On the contrary, ashing might cause the loss of some asbestos fibers. Ashing would not create a false positive for the presence of crocidolite in Mr. Braun's lung tissue.

Dr. Schwartz did not know if there were established or preferred methods for removing lung tissue, or if bleach digestion or low temperature plasma ashing were methods customarily used for preparing lung tissue for fiber burden analysis, or if high temperature ashing of

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[4] The Seventh Circuit states that "relying on the lab assistant's purely oral report...is not fine given the novelty of the procedure." (A.7) As set forth above, the protocol used by Schwartz, including the oral report, was the standard procedure at his lab and the report was not purely oral because Dr. Schwartz also looked at Lov's worksheets. (T.1017-18, 1045 and 1049-50)

lung tissue is not a method customarily relied upon by experts who do fiber burden analysis.[5] He did know of the bleach digestion method for removing organic material. Using ashing, rather than bleach digestion, actually made it slightly harder to find crocidolite fibers because with high temperatures there is always a chance of losing chemical content and therefore less likelihood of identifying asbestos. So, to the extent that ashing created a risk of inaccuracy, it was a risk for the false negative of not finding fibers that were there, not a risk for a false positive of wrongly identifying something as crocidolite.

Based on the information from his lab, Dr. Schwartz had an opinion with a reasonable degree of scientific certainty that crocidolite asbestos fibers were present in Mr. Braun's lung tissue. However, a motion to strike that opinion was granted based on a lack of foundation under *Daubert*.

The district court had made a pretrial, preliminary determination that the procedure used by Schwartz met the *Daubert* standard of reliability. (A.31-32) In doing so, the district court specifically noted that it had "considered the known or potential error rate of Dr. Schwartz's analysis based on his deposition." (A.32) At trial, direct examination was interrupted twice for voir dire on whether there was a foundation under *Daubert*. First, the objection was sustained. At side-bar, the judge asked, "is this methodology the type that is customarily relied upon in this type of--with regard to this particular type of research," and then misstated the *Frye* test as the *Daubert*

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[5] It was in response to those statements that the trial judge said that Schwartz did not know about the methodology. (T.1062-1073; A.5 and A.40-42)

test, saying, "as I read *Daubert*, this is one of the requirements, that it must be customarily relied upon by the relevant scientific community, the methodology." (A.4-5; A.36) After additional questioning by plaintiff's counsel, the trial court reversed itself and overruled the objection. After allowing a second voir dire, the trial court reversed itself again and sustained the objection and granted the motion to strike.

An offer of proof was made that Dr. Schwartz would testify that he had opinions with a reasonable degree of scientific certainty that: (1) Mr. Braun's lung tissue contained crocidolite asbestos based on TEM observations of tissue samples which showed crocidolite, both by morphology and by EDXA; and (2) the range of crocidolite fibers in Mr. Braun's lung tissue was between 500 and 50,000 fibers per gram, based on calculations made from the quantity of fibers found, and the size of the sample that was examined.

After about a day of deliberations, the jurors asked that Dr. Schwartz's testimony be read back to them. The following morning, the trial court and the jury exchanged a series of notes. Eventually, the judge sent a note to the jury which admonished the jurors about the stricken testimony and asked if they "still wished to hear any testimony." The jury's response was no. Less than a half hour thereafter, the jury returned with a verdict for the defense.

Prior to trial, the district court had accepted Dr. Schwartz's expertise in denying defendants' motion for summary judgment. (A.30-32) At trial, the court overruled an objection to Dr. Schwartz's qualifications to testify about using TEM to examine lung tissue for asbestos. (T.1023-26) After striking Dr. Schwartz's opinion based on the method that his lab used, the district

court allowed Dr. Schwartz to opine on the lack of significance of Roggli's and MAS' failure to find crocidolite in Mr. Braun's lung tissue.

The Seventh Circuit said that Dr. Schwartz was an "acknowledged expert on the testing of building materials for asbestos." (A.3.) But disregarding the district court's conflicting determination that Dr. Schwartz was an expert on examining lung tissue for the presence of asbestos, the Seventh Circuit called Schwartz a "nonexpert" on "the detection of asbestos in human tissues."[6] (A.7)

Dr. Frederick Pooley is a microscopist hired by the defense who, with a colleague, examined samples of Mr. Braun's lung tissue by TEM. These samples were from the lung tissue that the defense received under the district court's order. Dr. Pooley stated that "most" researchers performing such examinations remove the organic material using bleach digestion. Dr. Pooley stated that neither he, nor his colleague, found crocidolite in the sample of Mr. Braun's lung tissue that they examined and he claimed that Mr. Braun's mesothelioma should be classified as non-asbestos related.

The size of the sample that Pooley and his colleague actually examined was 12/100,000s of an average size lung. Dr. Pooley and his colleague actually

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6 Whether a witness is qualified as an expert under F.R.Ev. 702 is within the "wide discretion" of the trial court and is reviewed on a "manifestly erroneous" standard. *United States v. Stevenson*, 6 F.3d 1262, 1267 (7th Cir. 1996). The Seventh Circuit either overlooked the trial court's ruling on Schwartz's qualifications as an expert on examining lung tissue for asbestos or disregarded the trial court's discretion to make that decision.

examined less than 15/10,000s of the tissue from Mr. Braun's lung that they received. (T.2704-5 and 2712-17)

The district court allowed Dr. Pooley to comment on the results obtained from plaintiff's non-testifying experts and he used Roggli's results to support his position that there was no crocidolite in Mr. Braun's lung.

Dr. David Cugell was an expert witness for the plaintiff. He is a board certified pulmonologist at Northwestern Memorial Hospital and Northwestern Medical School who has taught, lectured and published on asbestos-related diseases and was on a committee of the American Medical Association which prepared a primer for physicians on asbestos-related diseases. Dr. Cugell has treated about a dozen mesothelioma patients.

Dr. Cugell testified that unlike some diseases, mesothelioma can occur as the result of a very low dose of asbestos. In Dr. Cugell's opinion, Mr. Braun's mesothelioma was caused by exposure to crocidolite from smoking Kent cigarettes. According to Dr. Cugell, Mr. Braun never worked anywhere that would have exposed him to anything that might cause mesothelioma. In Dr. Cugell's opinion, it is "highly improbable and most unlikely for Mr. Braun smoking Kents with crocidolite and developing mesothelioma to be coincidental." (T.1369)

In direct examination, Dr. Cugell stated that he had reviewed various documents, including statements by Dr. Andrew Churg, and relied on those documents in forming his opinions in this case.

On cross, the defense attempted to use opinions of Dr. Churg to impeach Dr. Cugell. Dr. Cugell's answers acknowledged that: (1) Dr. Churg is an authority on asbestos diseases; (2) He would not be surprised if Churg thought it was necessary to determine if there is asbestos in the lung and the type and the amount of asbestos

present, before making a diagnosis; (3) Churg has written that mesothelioma appears with higher amounts of asbestos in the lungs than benign pleural changes; (4) Churg has written that asbestos disease appears with amounts of asbestos in the lungs some two to three orders of magnitude greater than that found in the general population; (5) Churg has written that some persons with mesothelioma have no history of asbestos exposure and no finding of more than a background amount of asbestos in their lungs and that supports the proposition that some mesotheliomas are unrelated to asbestos exposure.

On redirect, Dr. Cugell was asked if Dr. Churg had expressed an opinion as to whether smoking Kents with the asbestos filter could cause mesothelioma and the defense objected. Churg had, in fact, testified to that opinion in another case. During the sidebar, the judge was informed that Dr. Churg had in fact issued an opinion that Kent cigarettes had caused mesothelioma. The judge told defense counsel that "the defendant has put Dr. Churg into the equation. You raised other reports that he has written....If, in fact, the [witness] is familiar with these other reports and since that time has learned other opinions that have been rendered by this same person, on redirect examination, it seems to me that they have an absolute right to go into that." (T.1435-36)

In spite of that statement, the trial court sustained the objection on the basis of "hearsay." (T.1444-45) The district court limited redirect to Cugell saying only that he utilized Dr. Churg's statement in forming his opinion.

The Seventh Circuit stated that:

> The cross-examination of Cugell had conveyed the impression that Dr. Churg believed, contrary to Cugell, that the Kent filter could not cause

> mesothelioma. In fact he believed the opposite, and it was proper to demonstrate this in the redirect examination of the witness whose testimony had been called into question by the misleading cross-examination. A.13.

Nevertheless, the Seventh Circuit held that the district court's error in restricting the redirect was "harmless." (A.13.)

REASONS FOR GRANTING THE WRIT

I. THE SEVENTH CIRCUIT'S RULING ON EXCEPTIONAL CIRCUMSTANCES CONFLICTS WITH THE PLAIN LANGUAGE OF RULE 26, CONFLICTS WITH CASE LAW WHICH USES AN EQUIVALENT INFORMATION TEST, AND ERRONEOUSLY DEFINES TESTING SAMPLES AS EXCEPTIONAL CIRCUMSTANCES.[7]

Rule 26(b)(4)(B) bars the discovery of "facts or opinions" held by retained, non-testifying experts, unless there are "exceptional circumstances under which it is impracticable for the party seeking discovery to obtain facts or opinions *on the same subject matter by other*

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[7] Without citing to any date or particular part of the record, the Seventh Circuit erroneously accused plaintiff's counsel of falsely stating that asbestos fibers are "uniformly" distributed throughout lung tissues. (A.8) Counsel do not believe that they made such a statement. Counsel believe that they accurately stated that each side had the same amount of tissue and that both sides had an equal opportunity to test representative samples.

means." (Emphasis added.) The Seventh Circuit's opinion conflicts with the plain language of the rule because it was not "impracticable" for the defense "to obtain facts or opinions on" whether crocidolite could be found in Mr. Braun's lung tissue "by other means." That it was not impracticable is evident, since the defense obtained facts and opinions on that subject from Dr. Pooley. Accordingly, under the clear words of the rule, the defense was not entitled to the Roggli and the MAS reports.

The prevailing test for "exceptional circumstances" has been whether a party has "a basic lack of ability to discover the equivalent information." *Eliasen v. Hamilton*, 111 F.R.D. 396, 401 (N.D. Ill. 1986); *Dominguez v. Syntex Laboratories, Inc.*, 149 F.R.D. 158, 163 (S.D. Ind. 1993); *Hartford Fire Ins. v. Pure Air On The Lake*, 154 F.R.D. 202, 208 (N.D. Ind. 1993).

> The exceptional circumstances requirement has been interpreted by the courts to mean an inability to obtain equivalent information from other sources. *See Marine Petroleum*, 641 F.2d at 994; *Candebat v. Zimmer, Inc.*, 1990 WL 43922...(E.D. La. April 6, 1990); *Sabido v. ANR Freight System, Inc.*, 1988 WL 58408...(E.D. La. May 31, 1988); *United States v. Hooker Chemicals & Plastics Corp.*, 112 F.R.D. 333, 338 (W.D. N.Y. 1986); *Grindell v. American Motors Corp.*, 108 F.R.D. 94, 95 (W.D. N.Y. 1985); *Mantolete v. Bolger*, 96 F.R.D. at 181; *Puerto Rico Aqueduct and Sewer Authority v. Clow Corp.*, 108 F.R.D. 304, 310 (D. P.R. 1985). *In Re Shell Oil Refinery*, 132 F.R.D. 437, 442 (E.D. La. 1990).

The Seventh Circuit's opinion conflicts with the prevailing case law, since both sides had equal samples of lung tissue and had an opportunity to discover equivalent information about the lung tissue. Equivalent does not mean identical.

This is not a situation where the amount of samples was so limited that the defense could not establish a large enough data base without the results from plaintiff's non-testifying experts. Pooley and his colleague examined less than 15/10,000s of the lung material that they received. Thus, the defense had the opportunity to establish a vastly greater data base, without the results from plaintiff's non-testifying experts.

The Seventh Circuit has ruled that "exceptional circumstances" exist because there was sampling of non-homogeneous matter. That conflicts with Rule 26's definition of "impracticable...to obtain facts or opinions on the same subject matter," as well as with the equivalent information test. The whole purpose of sampling is to obtain reliable information about the whole by examining part of the whole. Defining exceptional circumstances as testing non-identical materials contradicts the scientific principle that sampling provides information about the object being sampled, so that the entire object does not have to be examined. Testing samples gives both sides equivalent information.

Under the Seventh Circuit's ruling, exceptional circumstances will exist under Rule 26 whenever scientific sampling occurs, since samples are never identical. That means that air samples, groundwater samples, soil samples, market research samples and other sampling would all be deemed to be exceptional circumstances. That drastically erodes the scope of the Rule 26's protection of non-testifying experts. Given the scope of

sampling and given the extensive use of experts in litigation, this will impact many cases. It is important that this Court not allow the ruling to stand.

II. THE SEVENTH CIRCUIT'S RULING CONFLICTS WITH *DAUBERT* AND ITS PROGENY BY: WEIGHING THE RELIABILITY OF A SCIENTIFIC METHOD, RATHER THAN JUST DETERMINING THAT SCIENCE WAS USED; REFUSING TO ADMIT EVIDENCE EVEN THOUGH IT MET THE STANDARD OF REFUTABILITY; REFUSING TO ADMIT EVIDENCE EVEN THOUGH ITS RELEVANT ERROR RATE WAS ZERO; REQUIRING MORE THAN REASONING TO ESTABLISH THE PROPRIETY OF APPLYING THE METHOD TO THE FACTS IN ISSUE; AND MISINTERPRETING WHAT CONSTITUTES "GENERAL ACCEPTANCE."

Contrary to *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, ___ U.S. ___, 113 S.Ct. 2786 (1993) and its progeny, the Seventh Circuit: (1) did not merely guard against unscientific speculation, but instead decided whether it was satisfied with the science that was used; (2) disregarded a key *Daubert* factor, that the witness' method could be tested, thereby failing to use the standard of refutability; (3) failed to accept uncontradicted evidence from a witness found to be a qualified expert by the district court that the relevant error rate was zero; (4) demanded that there be prior use of the witness' method, not just a scientifically valid, reasonable generalization of an established method to a similar situation; and (5) misinterpreted the meaning of "general acceptance" in conflict with the proper interpretation of the Sixth Circuit.

A. Contrary To *Daubert*, The Seventh Circuit Did Not Limit Itself To Drawing The Line Between Science And Speculation; It Ruled On Whether It Was Satisfied With The Science That Was Presented.

Contrary to the Seventh Circuit's ruling, *Daubert* was not intended to have judges decide it was not science to follow an EPA protocol to remove organic matter by ashing it, in preparation for examining a sample for crocidolite asbestos, under a transmission electron microscope, with energy dispersive x-ray analysis (EDXA), to confirm the chemical content of any suspected asbestos. By ruling as they did, the Seventh Circuit improperly placed judges in the roles of scientist and jurors.

> This gatekeeping role [under *Daubert*] is simply to guard the jury from considering as proof pure speculation presented in the guise of legitimate scientifically-based expert opinion. It is not intended to turn judges into jurors or surrogate scientists. Thus, the gatekeeping responsibility of the trial courts is not to weigh or choose between conflicting scientific opinions.... Rather, it is to assure that an expert's opinions are based on relevant scientific methods, and that they apply to the facts in issue. *Joiner v. General Electric Co.*, 78 F.3d 524, 530 (11th Cir. 1996).

Daubert held that the *Frye* test should not be used because the F.R.Ev. 702 provides a more lenient standard for the admission of scientific evidence than did *Frye*. *Joiner*, 78 F.3d at 530; *United States v. Bonds*, 12 F.3d 540, 565 (6th Cir. 1993). *Daubert* was intended to guard the jury from speculation. However, under *Daubert*, once a

threshhold showing is made that the witness used science, not mere speculation, the evidence should be admitted, despite any weaknesses in the evidence that the court perceives. 113 S.Ct. at 2798.

> Questions about the certainty of the scientific results are matters of weight for the jury. . . And, in general, criticisms touching on whether the lab made mistakes in arriving at its results are for the jury. *United States v. Bonds*, 12 F.3d 540, 563 (6th Cir. 1993).

That is because such evidentiary weaknesses are for the jury to weigh.

> Vigorous cross-examination, presentation of contrary evidence, and careful instruction on the burden of proof are the traditional and appropriate means of attacking *shaky but admissible evidence*. (Emphasis added.) *Daubert*, 113 S.Ct. at 2798.

As the Eleventh Circuit cautioned district courts:

> Trial judges must evaluate scientific processes and studies with which they may not be intimately familiar, but be careful not to cross the line between deciding whether the expert's testimony is based on "scientifically valid principles" and deciding upon the correctness of the expert's conclusions. The latter inquiry is for the jury and, therefore, judges may not implicitly factor it into their assessment of reliability. *Joiner v. General Electric Co.*, 78 F.3d 524, 530 (11th Cir. 1996).

The Eleventh Circuit further stated that:

> [T]he purpose of the [court's] inquiry [is] to exclude opinions based on mere speculation. While this inquiry cannot be made without some consideration of the quality of the research in question, the district court's focus is a narrow one and does not encompass deciding which expert's conclusions are better reasoned or more appealing. *Joiner*, 78 F.3d at 532.

The Seventh Circuit's criticisms of Dr. Schwartz and of plaintiff's counsel, although unfair and based on a misunderstanding of the actual facts, are extrinsic to whether Dr. Schwartz used science. At most, they are credibility issues for the jury.

Thus, in the present case, the Seventh Circuit misapplied *Daubert* and created a standard by which courts reject scientific testimony because they are not satisfied with it, rather than limiting themselves to the issue of whether the testimony is scientific, as opposed to merely speculative.

B. The Seventh Circuit's Decision Is In Conflict With *Daubert's* Standard That "The Criterion Of The Scientific Status Of A Theory Is Its Refutability."

An important factor under *Daubert* is whether the witness' method can be tested to determine its reliability. In other words, is it a repeatable process? *Daubert*, 113 S.Ct. at 2796-97; *United States v. Bonds*, 12 F.3d 540, 558 (6th Cir. 1993). As this court stated in *Daubert*, "the criterion of the scientific status of a theory is its refutability." 113 S.Ct. at 2797. Accordingly, in *Bonds*,

the Sixth Circuit stated that:

> Thus, it appears that by attempting to refute the FBI's theory and methods with evidence about deficiencies in both the results and the testing of the results, the defendants have conceded that the theory and methods can be tested. The dispute between the Government and the defendants is over *how* the results have been tested, not over *whether* the results can be or have been tested. (Emphasis Original.) 12 F.3d at 559.

Similarly, in the present case, the dispute was not over whether Dr. Schwartz' lab's results could be tested, but over how it tested to obtain its results. The defense could and did present evidence that other electron microscopic examinations did not find crocidolite in the lung tissue. Even more significantly, the method used by Dr. Schwartz's lab could be checked by having a defense expert test to see whether ashing could create the false appearance of crocidolite. That the defense did not try to refute a refutable analytical technique does not make the technique inappropriate.

If results can be replicated, "it is irrelevant that there are other methods" that could also have been used. *Bonds*, 12 F.3d at 558. Thus, the Seventh Circuit is in conflict with both *Daubert* and with the Sixth Circuit because the Seventh Circuit decided that the analysis by Dr. Schwartz was not science, despite the "refutability" of the method used by Dr. Schwartz.

C. Refusing To Admit Evidence That Crocidolite Asbestos Was Found In Norman Braun's Lung Tissue Is Contrary To *Daubert* Where The Uncontradicted Testimony Was

That The Ashing Procedure In Question Would *Not* Cause A False Positive Finding Of Crocidolite Under Examination By A Transmission Electron Microscope With Confirming Energy Dispersive X-Ray Analysis.

Daubert states that courts "ordinarily should consider the known or potential rate of error." 113 S.Ct. at 2797. In placing itself in the role of scientist/juror, the Seventh Circuit disregarded the critical fact that controls whether ashing is scientifically reliable. This uncontroverted fact in the record is that ashing will not create a false positive for the presence of crocidolite. The only difference in Schwartz's and Pooley's methodology was how the organic lung tissue was removed in preparation for the TEM with EDXA. The only basis for barring Schwartz's opinion would be if ashing were unreliable because it might cause a false positive for the presence of crocidolite. That ashing might create a false negative (no crocidolite being found, even though it was present) is not a rational basis for excluding plaintiff's evidence that it was indeed found.

The Seventh Circuit's opinion states that Dr. Schwartz testified ashing was "far more likely to produce a false negative than a false positive." (A.4) But the actual testimony was far stronger than even that. What Dr. Schwartz actually said was that ashing "would not create fibers that were present before we started," so that there was no "reasonable possibility" of ashing causing a false positive for the presence of crocidolite. (A.45) To the extent that ashing created a risk of an inaccurate result, it was a risk of not finding crocidolite that was there, a false negative. (A.47-48) No witness said that there could have been a false positive. Uncontradicted testimony from an electron microscopist, with a Ph.D. in

anatomy and experience in studying lung tissue, whom the trial court ruled is an expert on examining lung tissue by TEM, is surely sufficient to lay a foundation for *Daubert*.

The Seventh Circuit's rejection of evidence which would not create a false positive finding of crocidolite asbestos, in a TEM examination with confirming EDXA, conflicts with this Court's emphasis on the importance of the error rate in *Daubert*.

D. The Seventh Circuit's Ruling Conflicts With *Daubert* And With Other Federal Circuit Opinions By Demanding Specific, Prior Experimental Data, Not Just Theoretical Reasoning.

The Seventh Circuit insists that Dr. Schwartz's testimony that ashing will work on human tissue is speculation, since "he has never done any testing of those tissues." (A.7) In doing so, the Seventh Circuit is requiring that prior, experimental data on exactly the same issue exist. That is wrong and conflicts with *Daubert*, as well as with *Rosen v. Ciba-Geigy*, 78 F.3d 316 (7th Cir. 1996), and *Joiner v. General Electric Co.*, 78 F.3d 524 (11th Cir. 1996), because scientific, theoretical reasoning is sufficient, without such experimental data.

In *Daubert*, this Court specifically cautioned that judicial gatekeeping should assess "whether the *reasoning or* methodology underlying the testimony is scientifically valid and can be applied to the facts in issue." (Emphasis added.) *Daubert*, 113 S.Ct. at 2796; *Joiner*, 78 F.3d at 530. Following *Daubert*, in *Rosen*, the Seventh Circuit recognized that prior test data is not required to have a scientific approach and that only a theoretical reason need be given to show that evidence is scientific, not just speculative. Under *Rosen*, the Seventh Circuit's present

concern that ashing had not previously been applied to human tissue is not a reason to bar the testimony, given the "theoretical reason" for why ashing will work. (78 F.3d at 319.)

Rosen excluded testimony because all the expert offered was a "bottom line" conclusion, or a "hunch" without any supporting "*theoretical reason*...or any experimental, statistical, *or other scientific data*." (Emphasis added.) (78 F.3d at 319.) But, Dr. Schwartz did not just give a "bottom line" conclusion. He reasoned, based upon his education and experience in the field, that ashing could not create a false positive because it can neither create asbestos, nor create a fiber whose morphology and chemistry appear to be crocidolite under a TEM with EDXA examination.

Under *Rosen*, witnesses must "adhere to the same standards of intellectual rigor that are demanded in their professional work....If they do, their evidence...is admissible even if the particular methods they have used in arriving at their opinion are not yet accepted as canonical in their branch of the scientific community." (78 F.3d at 318.) Removing organic material by ashing, in preparation for using TEM to look for asbestos, is scientifically accepted and removes the organic material. Ashing is the same method Dr. Schwartz normally uses as part of an EPA protocol to remove the organic constituents of building materials, so that the remaining inorganic material can be examined by TEM for asbestos. Thus, the *Daubert* issue is whether the EPA "methodology underlying" Schwartz's testimony, is "scientifically valid" and whether it "can be applied" to removing human tissue, an organic matter, so that the remaining inorganic material can be examined by TEM for asbestos.

Obviously, the EPA protocol has scientific validity.

No witness disputed Dr. Schwartz's testimony that ashing could be applied to removing lung tissue because ashing removes any organic matter, including human tissue, and does not create a false positive. The reasons why this is so are: (1) all organic matter, including human tissue, burns, therefore it will be removed by ashing it; and (2) nothing in the ashing method will transform something that is not crocidolite into the shape and chemical composition of crocidolite. Thus, examining the morphology and chemistry of suspected fibers by TEM with EDXA, after ashing the organic matter, will *not* result in falsely identifying non-crocidolite as crocidolite. That is as true when one starts with human tissue, as it is when one starts with organic building materials. Accordingly, in dismissing Dr. Schwartz's theoretical reasoning as mere speculation and in insisting on specific, prior experimental data, the Seventh Circuit is in conflict with *Daubert*, as well as with *Rosen* and *Joiner*.

E. The Seventh Circuit's Decision Conflicts With The Sixth Circuit On The Meaning Of "General Acceptance" By The Scientific Community.

The Seventh Circuit's rejection of the ashing method used by Dr. Schwartz's lab was premised upon that method not being generally accepted by the relevant scientific community. In doing so, the Seventh Circuit misinterpreted the meaning of "general acceptance" and created a conflict with the Sixth Circuit's decision in *Bonds*, *supra*. As the *Bonds* court explained, "general acceptance" does not mean that a "concensus" exists. 12 F.3d at 562.

> [T]he absence of a majority does not necessarily

> rule out general acceptance. The general acceptance test is designed only to uncover whether there is a general agreement of scientists in the field that this scientific data is not based on a novel theory or procedure that is "mere speculation or conjecture"....Only when a theory or procedure does not have the acceptance of most of the pertinent scientific community, and in fact a substantial part of the scientific community disfavors the principle or procedure, will it not be generally accepted. 12 F.3d at 562.

In contrast to that definition, the Seventh Circuit treated Dr. Schwartz's lack of knowledge on the scientific community's preferred method, if any, for removing lung tissue, as the equivalent of the ashing method not being accepted by most of the pertinent scientific community and, in fact, being disfavored by a substantial part of the scientific community. But, those are two very different things. There is no evidence that the scientific community, if asked, would have rejected Dr. Schwartz's protocol.

Furthermore, "the general acceptance test is designed only to uncover whether there is a general agreement of scientists in the field that this scientific data is not based on a novel theory or procedure that is mere speculation or conjecture." *Bonds*, 12 F.3d at 562. In the instant case, however, Dr. Schwartz did not invent a new protocol. His lab followed the EPA protocol which it normally used, but applied it to the organic matter of human lung tissue, instead of the organic matter of building materials. That may have provided a basis for cross-examination, but it did not turn the highly sophisticated process of transmission electron microscopy

with EDXA into "junk science."

The Seventh Circuit's opinion creates an important conflict with the Sixth Circuit on the meaning of "general acceptance" by the scientific community, which this Court should review.

III. CONCLUDING THAT IT WAS HARMLESS ERROR TO REFUSE TO ALLOW REDIRECT QUESTIONS TO DIRECTLY CORRECT WHAT THE SEVENTH CIRCUIT ACKNOWLEDGES WAS A "MISLEADING CROSS-EXAMINATION" OF PLAINTIFF'S CRITICAL PROXIMATE CAUSE WITNESS, VIOLATES THE STANDARD SET BY THIS COURT IN *KOTTEAKOS V. UNITED STATES* AND CREATES A HARMLESS ERROR STANDARD WHICH DISREGARDS THE REALITIES OF COMMUNICATING WITH A JURY.

Dr. Cugell was plaintiff's critical proximate cause witness and testified that the Kent asbestos filter caused Mr. Braun's mesothelioma. Everyone agreed that Dr. Churg was an authority on mesothelioma. The Seventh Circuit acknowledges that the cross-examination of Cugell was misleading because it gave the false impression that Churg believed that smoking Kents with the asbestos filter could not cause mesothelioma, when, in fact, Churg believed the opposite.

Nevertheless, the Seventh Circuit calls the refusal to allow plaintiff to show that Churg, like Cugell, believed that the Kent filter caused mesothelioma, harmless error. It does so because the trial judge let Cugell make the general statement on redirect that he had based his opinion, in part, on statements by Churg. That general statement was worthless. Such a non-specific, vague assertion carries no persuasive power with a jury. Jurors,

and rightfully so, do not trust broad, conclusory statements. Jurors want to hear specific facts. All that the redirect could have done was to make the jurors wonder what Churg had really said. The redirect cured nothing about the misleading cross. The cure was to simply let Cugell testify that he was relying, in part, on Churg's opinion that the Kent filter caused mesothelioma.

To do justice, courts must deal with the reality of what does and does not matter to a jury. On redirect, would it have been even adequate lawyering for plaintiff's counsel to have merely asked the general question allowed by the judge, rather than asking what Churg had actually said? Plaintiff submits that no trial lawyer could honestly suggest that. If so, then the district court's restrictions on redirect examination could not be harmless error.

> [I]f one cannot say, with fair assurance,...that the judgment was not substantially swayed by the error, it is impossible to conclude that substantial rights were not affected [and that the error was harmless]. *Kotteakos v. United States*, 328 U.S. 750, 767 (1946); *Jordan v. Medley*, 711 F.2d 219 (D.C. Cir. 1983).

Here, the credibility of plaintiff's critical proximate cause witness was "called into question by the misleading cross-examination." (A.13) Defense counsel did so because they thought that it would make a difference. It very well could have made a difference. Under *Kotteakos*, that is not harmless error.

It is important that this Court not allow the Seventh Circuit opinion to stand in light of the improperly lenient precedent that it sets for harmless error.

CONCLUSION

For the reasons set forth above, petitioner Saralee Braun, as Administrator of the Estate of Norman Braun, Deceased, and Individually, respectfully requests that this Court grant this petition for certiorari.

DATED: September 1996

Respectfully submitted,

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In the

United States Court of Appeals

For the Seventh Circuit

No. 95-4094

SARA LEE BRAUN, individually and as executor of the estate of NORMAN BRAUN, deceased,

Plaintiff-Appellant,

v.

LORILLARD INCORPORATED and HOLLINGSWORTH & VOSE COMPANY,

Defendants-Appellees.

Appeal from the United States District Court
for the Northern District of Illinois, Eastern Division.
No. 94 C 976—Blanche M. Manning, *Judge.*

ARGUED APRIL 8, 1996—DECIDED MAY 17, 1996

Before POSNER, *Chief Judge*, and ROVNER and EVANS, *Circuit Judges.*

POSNER, *Chief Judge.* Concerns with the abuse of the litigation process are being voiced ever more loudly. There are grounds for these concerns, but at least with respect to the federal courts of this circuit the concerns are exaggerated. Most of the district judges and other front-line federal judicial officers in this circuit exercise firm control over the conduct of litigation in a generally successful effort to prevent litigation from getting out of hand in point of delay or expense, or from being degraded by

"junk science," appeals to prejudice, runaway jury verdicts, and other justly reprobated abuses of the legal process. In this case a disappointed personal-injury plaintiff argues that the district judge exercised *too* firm a control over the proceedings. Let us see.

In the 1950s the Lorillard tobacco company sold Kent cigarettes with a filter that contained crocidolite asbestos, the most toxic form of asbestos. (Chrysotile asbestos, the most common form of asbestos, is much less toxic.) This was the famous "micronite" filter, one of those forgotten 1950s icons like 3-D movie glasses and chicken à la king. The filter had been manufactured by Hollingsworth & Vose. Norman Braun smoked these cigarettes and many years later developed mesothelioma, a form of cancer that is most commonly caused by exposure to crocidolite asbestos. He died of the disease at the age of 63 during the course of this suit, a diversity suit that seeks to affix tort liability on Lorillard and Hollingsworth & Vose by means of the common law doctrines of strict products liability, negligence, and recklessness. The applicable substantive law is that of Pennsylvania but nothing turns on this; the only issues raised by the appeal are procedural.

The case went to trial. The main defense was that the asbestos fibers in the micronite filter would not have been released from the filter in the course of smoking and therefore could not have caused Mr. Braun's mesothelioma. Not all cases of mesothelioma are due to exposure to crocidolite asbestos, though most are. And even if Braun's case was due to such exposure, he may have been exposed to crocidolite asbestos from sources other than the Kent micronite filter.

The trial lasted three weeks and featured an impressive parade of expert witnesses. The jury deliberated, and returned a verdict for the defendants. The plaintiff's appeal does not question the sufficiency of the evidence to support the verdict but does challenge a number of the district judge's evidentiary rulings. It should be unnecessary to point out that the verdict was not a determination that cigarettes are harmless to human health or even that

Kent's micronite filter was incapable of causing mesothelioma. It was merely a determination that the plaintiff had failed to prove that the filter had caused her decedent's mesothelioma.

The most consequential of the evidentiary rulings challenged by the plaintiff's appeal is the exclusion of testimony by David Schwartz, an expert witness called by the plaintiff, that lung tissue obtained in the autopsy of Mr. Braun contained crocidolite asbestos fibers. Dr. Schwartz is a professor of biochemistry and the president of a consulting firm that does environmental testing with particular emphasis on testing for the presence of asbestos, including crocidolite asbestos. He directed his lab assistant to subject a section of Braun's lung tissue to "high temperature ashing," in which the substance being tested for the presence of asbestos fibers is, in effect, boiled away by the application of heat, leaving the asbestos (if any), since asbestos is highly heat resistant. The assistant did a spectrographic analysis of the residue. According to his oral report to Schwartz, the analysis revealed the presence of crocidolite asbestos fibers.

This was the only evidence that such fibers were present in Braun's lungs, although there was expert testimony that the absence of such fibers when he died was not inconsistent with their having been there earlier and caused Braun's mesothelioma. The judge would not let Schwartz's testimony concerning the presence of the fibers go to the jury. Although Schwartz is an acknowledged expert on the testing of building materials for asbestos, he had never before conducted a test on human or animal tissue. Nor, so far as appears, has high temperature ashing ever been used by anyone else to test for the presence of asbestos fibers in tissue. The standard methods of testing for such presence go by the names of "bleach digestion" and "low temperature plasma ashing." The plaintiff's lawyers had hired recognized experts in the detection of asbestos in tissue, and those experts had conducted tests of tissue from Braun's lungs using the standard methods, and had found nothing. The lawyers then turned to Dr. Schwartz

and asked him to do something different, and he obliged. At his deposition, and later at the voir dire to determine whether he should be allowed to give opinion evidence, he testified that high temperature ashing is as usable on tissue as on bricks. He acknowledged the possibility that the method might "break fibers and hence spuriously increase their number," and, more serious still, might alter the chemistry of the sample. The altered chemistry might affect the spectrographic profile of any fibers found in the residue—might alter the "appearance" of the fibers so that it was impossible to tell whether they were crocidolite fibers or some other type of asbestos fiber. But he testified that his method was far more likely to produce a false negative than a false positive, though in fact it was the only method used on Mr. Braun's lung tissues that produced a positive test result.

The plaintiff complains that the district judge excluded Dr. Schwartz's evidence merely because he did not use one of the generally accepted methods of testing for the presence of crocidolite asbestos in human tissues. The Supreme Court held in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 113 S. Ct. 2786 (1993), that the opinion evidence of reputable scientists is admissible in evidence in a federal trial even if the particular methods they used in arriving at their opinion are not yet accepted as canonical in their branch of the scientific community. But that is only part of the holding of *Daubert*. The other part is that the district court is responsible for making sure that when scientists testify in court they adhere to the same standards of intellectual rigor that are demanded in their professional work. *Rosen v. Ciba-Geigy Corp.*, 78 F.3d 316, 318 (7th Cir. 1996); *Bammerlin v. Navistar Int'l Transportation Corp.*, 30 F.3d 898, 901 (7th Cir. 1994). The scientific witness who decides to depart from the canonical methods must have grounds for doing so that are consistent with the methods and usages of his scientific community.

The district judge did remark at one point that *Daubert* requires that the expert's method be one "customarily

relied upon by the relevant scientific community," which is incorrect. But she did not rest her decision to exclude his testimony on that ground. Her ground was that Schwartz had testified "that he really didn't have any knowledge of the methodology that should be employed, and he still doesn't have any information regarding the methodology that should be employed with respect to lung tissue. It seems to me that this witness knows absolutely nothing about analyzing lung tissue and [for?] asbestos fibers." The plaintiffs' lawyers committed a serious violation of 7th Cir. R. 30(c) by falsely certifying that all materials required by Rule 30 to be included in the appellant's appendix had been included, while leaving out the part of the trial transcript that contains the principal ground for Judge Manning's ruling that Dr. Schwartz could not give an opinion on the presence of asbestos fibers in Braun's lung tissues. By including in their appendix only the passage in which the judge misdescribed the holding of *Daubert*, the lawyers gave the impression that this misdescription was the entire basis for the judge's ruling. A false Rule 30(c) certification is grounds for dismissing an appeal, *Mortell v. Mortell Co.*, 887 F.2d 1322, 1327 (7th Cir. 1989); *Urso v. United States*, 72 F.3d 59, 61-62 (7th Cir. 1995), though it will not be necessary for us to decide whether it would be an appropriate sanction in this case.

Dr. Schwartz had never tested human or animal tissues for the presence of asbestos fibers (or, so far as appears, for anything else) before being hired by the plaintiff's lawyer. And he did not bother to familiarize himself with the standard methods for conducting such tests or to consult with scientists who are the experts in analyzing tissue. It was after he acknowledged this surprising lack of preparation, and the fact that the suggestion for using his method on human tissues had come from lawyers rather than anyone (himself included) in the scientific community, and that he spends 99.9 percent of his time engaged in administrative and marketing activities for his consulting firm (we suppose he meant of his consulting time, since he is also a professor), and that he could not name anyone

who has done work analyzing tissues for the presence of asbestos fibers, that Judge Manning, reversing her earlier ruling, decided to exclude his testimony concerning the presence of crocidolite asbestos fibers in Braun's lungs. Suppose that a scientist engaged in a research project rather than in a lawsuit had come to Schwartz with a section of lung tissue that he wanted tested for asbestos fibers. Would Schwartz, having no previous experience with the testing of tissue, have offered to use the method that he uses for testing ceiling tiles, without first acquainting himself with the accepted methods for testing human tissues and consulting with the users of those methods for advice on whether his method was as good (or better), or, contrariwise, might produce misleading spectrographic images?

Nowhere in *Daubert* did the Court suggest that failure to adhere to the customary methods for conducting a particular kind of scientific inquiry is *irrelevant* to the admissibility of a scientist's testimony. On the contrary, the Court made clear that it is relevant. 113 S. Ct. at 2796-97. A judge or jury is not equipped to evaluate scientific innovations. If, therefore, an expert proposes to depart from the generally accepted methodology of his field and embark upon a sea of scientific uncertainty, the court may appropriately insist that he ground his departure in demonstrable and scrupulous adherence to the scientist's creed of meticulous and objective inquiry. To forsake the accepted methods without even inquiring *why* they are the accepted methods—in this case, why specialists in testing human tissues for asbestos fibers have never used the familiar high temperature ashing method—and without even knowing *what* the accepted methods are, strikes us, as it struck Judge Manning, as irresponsible.

Consider: A litigant's lawyers approach a scientist and tell him that the accepted methods of testing for asbestos fibers in human tissues have come up negative. They ask him to use a different method and he without pause offers to use one that is designed for use on building materials and has never been used on human or animal tissues. Not

even knowing what the accepted methods of testing for the presence of asbestos in tissue are, let alone ever having conducted such a test, the scientist agrees to perform the test by his method, using a lab assistant (which is fine) but relying on the lab assistant's purely oral report, which is not fine given the novelty of the procedure. He speculates that his method is perfectly transferable from building materials to human tissues. Since he has never done any testing of those tissues, his speculations lack the authority of science. These are the symptoms of forensic science, an oxymoron. The plaintiffs' lawyers could have called one of the recognized experts in the testing of human tissues to validate Dr. Schwartz's novel methodology—the ones they had hired, for example—but they did not.

Modern science is highly specialized. An expert in the detection of asbestos in building materials cannot be assumed to be an expert in the detection of asbestos in human tissues even though, as the plaintiff reminds us, many building materials, most obviously wood, are, like human and animal tissues, organic rather than inorganic substances. The fact that the plaintiffs' lawyer turned to this nonexpert, having already consulted experts without obtaining any useful evidence, is suggestive of the abuse, or one of the abuses, at which *Daubert* and its sequelae are aimed. That abuse is the hiring of reputable scientists, impressively credentialed, to testify for a fee to propositions that they have not arrived at through the methods that they use when they are doing their regular professional work rather than being paid to give an opinion helpful to one side in a lawsuit.

So we think the district judge was entitled to screen out Dr. Schwartz's testimony concerning the presence of crocidolite asbestos in Braun's lungs, and we move on to the next question, which concerns the defendants' request, granted by the judge, for the negative test results of the plaintiff's nontestifying experts. Rule 26(b)(4)(B) of the Federal Rules of Civil Procedure forbids the judge to order disclosure in pretrial discovery of the facts found

or opinions formulated by an opponent's nontestifying experts except (so far as relevant to this case) "upon a showing of exceptional circumstances under which it is impracticable for the party seeking discovery to obtain facts or opinions on the same subject by other means." The underlying rule, that of nondisclosure, invites shopping for favorable expert witnesses and facilitates the concealment of negative test results. That is neither here nor there; the exception is a narrow one. But Judge Manning thought it applicable here.

When the defendants learned that the plaintiff's experts were going to test Braun's lung tissues for the presence of crocidolite asbestos, they were concerned because the tests would destroy the tissues tested and they wanted to conduct their own tests. The plaintiff's lawyers assured them that the destruction of the tissues would not hurt the defense. Any asbestos fibers would be uniformly distributed throughout the lung tissues, so that tests conducted by the defendants' experts on the sections of tissues that they had received from the autopsy would be tests of a reliable sample of the tissues as a whole. Later the plaintiffs' lawyers changed their tune. No longer did they suggest that crocidolite fibers if present would be uniformly distributed, for they wanted to protect themselves from an inference that negative test results on the tissue samples tested by the defendant's experts (who found no crocidolite fibers) would imply the absence of fibers throughout Braun's lungs. The change of position hampered the defense, which could not conduct its own tests on tissues that had been destroyed in the course of the plaintiff's tests. The only way the defense could find out whether there were crocidolite asbestos fibers in the tissues that the plaintiff's experts had tested was to get the test results. The condition for the exception in Rule 26(b)(4)(B) thus was satisfied, and we move to the next issue.

The plaintiff wanted to call as a witness a Richard McHenry, who had worked many years earlier for a company that manufactured cigarette filters. The plaintiff ex-

pected McHenry to testify that Lorillard had approached his company because of concerns about the danger from the asbestos in the Kent filters manufactured by Hollingsworth & Vose. McHenry was not, however, disclosed in the final pretrial order; and therefore under a standing order of the district judge he could not be called as a witness "absent good cause shown" for the omission of his name from the pretrial order. Cf. Fed. R. Civ. P. 26(a)(3), 37(c). The plaintiff's lawyers knew about McHenry—knew that he had been associated with a company approached by Lorillard regarding the possibility of replacing the asbestos filter. His name and a brief sketch of his relation to the filter issue appeared in several documents that the lawyers had had for more than a year. They just failed to look for him until nearly the eve of trial. There is no indication that he would have been tough to find any earlier, like the witness in *Griman v. Makousky*, 76 F.3d 151 (7th Cir. 1996), where, nevertheless, we upheld the district judge's order excluding the witness's deposition because the plaintiff had failed to make a diligent effort to produce him for the trial. Braun's lawyers had a business address for McHenry, albeit an old one, in Philadelphia. They could have called directory assistance for Philadelphia to get his current phone number. They did not, but eventually someone gave them his number and they interviewed him.

The trial had already begun in *Griman* when the plaintiff sought to introduce the deposition of the missing witness; but, given the deposition, at least there was no surprise to the defendants. In the present case the plaintiffs' lawyers announced their intention to call the witness ten days before the trial. This limited the surprise, but it still would have complicated the defendants' preparations for trial, maybe seriously, to have to depose him and perhaps look around for a witness to counter his testimony. The judge did not abuse her discretion in deciding that because of the lack of diligence in locating McHenry in time to list him in the pretrial order, the plaintiff could not add him later. Braun's lawyers, being specialists in litigation

against cigarette companies, had no compelling excuse for failing to locate so promising a potential witness for their side as they now consider McHenry to be.

Having failed to get him approved as a witness in the plaintiff's case in chief, the lawyers tried to call him as a rebuttal witness, and were again rebuffed. The standing order's requirement of good cause, as they point out, does not apply to rebuttal witnesses—unless they are "presently identifiable." McHenry was. What is more, McHenry was not a proper rebuttal witness. The plaintiff who knows that the defendant means to contest an issue that is germane to the prima facie case (as distinct from an affirmative defense) must put in his evidence on the issue as part of his case in chief. *Bronk v. Ineichen*, 54 F.3d 425, 432 (7th Cir. 1995); *Gossett v. Weyerhaeuser Co.*, 856 F.2d 1154, 1156-57 (8th Cir. 1988). Otherwise the plaintiff could reverse the order of proof, in effect requiring the defendants to put in their evidence before the plaintiff put in his.

The next issue concerns hearsay. In 1954 Lorillard had hired Althea Revere, who died in 1987, to examine Kents under an electron microscope. There is no documentary record of the results of her study. The plaintiff sought to call as witnesses Revere's son, and a journalist who had interviewed her in 1980, to testify that she had told them that she had reported to Lorillard that the Kent filters leaked asbestos into the cigarette smoke and that this made the smoke more dangerous than it would have been without a filter. (If the added protection from the filter offset the added danger from the asbestos in the filter, and a filter not containing asbestos would not have been as effective, the plaintiff might not have a claim. But we needn't get into that.) This testimony would have been hearsay, and would not have fallen within any of the specific exceptions to the hearsay rule. It would have been admissible if at all only under the catch-all exception, which requires that the judge be satisfied that the hearsay is as reliable as hearsay falling within the specific exceptions. Fed. R. Evid. 804(b)(5); see also Rule 803(24).

The district judge did not abuse her discretion in excluding these witnesses as purveyors of unreliable hearsay. The conversations with Althea Revere had occurred many years after she had done the work for Lorillard on the Kent filters. Her son had been only 14 in 1954, and he based his testimony about what his mother had told him on conversations that he had with her primarily in the 1960s and 1970s. The journalist interviewed her in 1980. These witnesses were not vague, but neither were they sufficiently precise and knowledgeable to enable a proper evaluation of the significance of the mother's out-of-court statements (or so at least the district judge could find). Whom had she spoken to at Lorillard? How definite had she been? What kind of supporting evidence had she provided? What had been the response to her report? There is no indication that the witnesses knew the answers to these questions.

The dangers of this sort of hearsay are obvious. A witness testifies to what he or she was told many years ago about events that had taken place many years before that by someone who is now deceased and left no documentary record. There is no way, given the remoteness of the events testified to, for the opposing party to verify the accuracy of the testimony or of the out-of-court statement that the testimony reports. Yet because memories fade and play tricks, see, e.g., *Krist v. Eli Lilly & Co.*, 897 F.2d 293 (7th Cir. 1990), the reliability of the statement cannot be taken for granted. Maybe Carl Sandburg went too far when he called the past "a bucket of ashes" (a metaphor appropriate, however, to a case about cigarettes), but we must not ascribe to courts a superhuman capacity to reconstruct the past.

Another unexceptionable ruling was to allow the chief executive officer of Lorillard to testify as an expert witness on the question whether it was likely that the micronite filter actually released asbestos fibers into the smoker's mouth and lungs, either directly or in the smoke. A litigant, or a litigant's CEO, or sole stockholder, or mother, or daughter is not, by reason of his or her or its relation to the litigant, disqualified as an expert

witness. We have had a case in which the plaintiff was his own expert witness. We pointed out that there was no impropriety in this; he was qualified to give an expert opinion on the matters in suit. *Tagatz v. Marquette University*, 861 F.2d 1040, 1042 (7th Cir. 1988).

Alexander Spears III, the chief executive officer of Lorillard, has a Ph.D. in organic chemistry, has published a number of scientific articles, and was for many years Lorillard's director of research. In that capacity he studied the design and construction of cigarette filters and participated in the development of such filters. He has also been involved in the development of smoking inhalation machines and in animal studies of smoke inhalation. In preparation for testifying at the Braun trial he studied the literature concerning the micronite filter and the experiments conducted by the plaintiff's experts. This study and his scientific background qualified him to offer an opinion on whether the micronite filter was likely to have released asbestos fibers in the course of smoking.

Of course Dr. Spears could hardly be thought a disinterested expert witness. No more could Dr. Tagatz. No more, for that matter, can an expert witness who, though unrelated to any of the litigants, is testifying in exchange for a handsome fee. *Id.* at 1042. The jury was not kept in the dark concerning Dr. Spears' relation to Lorillard. He admitted under cross-examination that part of his job as the chief executive officer of Lorillard was to represent the company as a witness in lawsuits. In light of this admission, and of his relation to the defendant with or without the admission, the jury is likely to have discounted his testimony heavily, making the judge's ruling harmless error if it was error at all; we do not think it was error.

The last evidentiary ruling that is challenged, and the only one that we think *can* plausibly be described as an abuse of discretion, concerns testimony by one of the plaintiff's experts, Dr. David Cugell. Dr. Cugell testified that because asbestos fibers disappear from living tissue at a rate of 15 percent a year, the absence of fibers in the lung tissues ob-

tained at Mr. Braun's autopsy did not prove that his mesothelioma was not due to asbestos. On cross-examination Cugell was asked whether another acknowledged expert on asbestos diseases, Dr. Andrew Churg, thinks it necessary to find asbestos in a patient's lungs before mesothelioma caused by asbestos can be diagnosed and holds other opinions that would further undermine the inference that the micronite filter caused Mr. Braun's mesothelioma. The lawyer read passages from Dr. Churg's scientific writings that seemed to support the line the lawyer took in the cross-examination, for example by indicating that asbestos fibers, including the carcinogenic variety such as crocidolite, are present in the lungs of most people, only a tiny fraction of whom develop mesothelioma. Andrew Churg, "Mineral Analysis of the Lung Parenchyma," in 2 *The Lung: Scientific Foundations* 1869, 1875 (Ronald G. Crystal et al. eds. 1991).

On redirect examination the plaintiff's lawyer tried to ask Dr. Cugell whether Churg had opined that smoking Kents with the micronite filter could cause mesothelioma. The judge sustained the defendant's objection to the question when it turned out that Churg had expressed this opinion in testimony in another lawsuit. The judge thought it unscientific of Cugell to rely on testimony in forming his own opinion about the causality of mesothelioma. Maybe so. But the issue here is not *Daubert*. It is the proper scope of redirect examination. The cross-examination of Cugell had conveyed the impression that Dr. Churg believed, contrary to Cugell, that the Kent filter could not cause mesothelioma. In fact he believed the opposite, and it was proper to demonstrate this in the redirect examination of the witness whose testimony had been called into question by the misleading cross-examination. *United States v. Gant*, 17 F.3d 935, 942 (7th Cir. 1994); *United States v. Martinez*, 988 F.2d 685, 702 (7th Cir. 1993); *In re Air Disaster at Lockerbie*, 37 F.3d 804, 817 (2d Cir. 1994).

But the error was harmless. Dr. Cugell was permitted on redirect examination to testify that he had based his

opinion, which was favorable to the plaintiff's theory of causation, in part on statements by the very Dr. Churg whom the defendants had tried to show supported their views. Cugell was not, it is true, permitted to identify the statement that Churg had made in the other lawsuit—that he believes that the Kent filter could cause mesothelioma. To permit Dr. Cugell to have repeated Churg's testimony might well have been overkill, without a collateral inquiry, which might have confused the jury and would certainly have protracted the trial, into the scientific basis of that testimony.

We find no basis for upsetting the jury's verdict, and the judgment for the defendants is therefore

AFFIRMED.

A true Copy:
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Clerk of the United States Court of Appeals for the Seventh Circuit

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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

SARALEE BRAUN as Executor of the Estate of NORMAN BRAUN, Deceased, and individually,

Plaintiff,

v. No. 94C976

LORILLARD, INC., a New York Corporation and HOLLINGSWORTH & VOSE CO., a Massachusetts Corporation,

Defendants.

ORDER

This matter is before the court on the motion of defendants, Lorillard, Inc. ("Lorillard") and Hollingsworth & Vose Co. ("H&V") to compel production of destructive testing results. Specifically, defendants are asking the court to compel plaintiff to produce any and all reports, documents and tangible evidence relating to testing performed by Dr. Victor L. Roggli on Norman Braun's lung tissue.

Defendants contend that two of the essential elements of plaintiff's claims in this case require plaintiff to prove that Norman Braun smoked asbestos-containing Kent cigarettes and

that as a result of smoking those cigarettes, Mr. Braun inhaled asbestos into his lungs. According to defendants, Dr. Frank Carone, the pathologist who performed the autopsy on Norman Braun testified, in a deposition, that he sent lung tissue of Mr. Braun to Dr. Victor Roggli for analysis, and that Dr. Victor Roggli performed such an analysis and prepared a written report setting forth his findings and results of his analysis of the tissue. Defendants further contend that Dr. Roggli was commissioned to conduct the analysis of Mr. Braun's lung tissue. Upon completion of the analysis, Dr. Roggli sent the written results to Dr. Carone. According to defendants, on the instruction of plaintiff's attorney, Rick M. Schoenfield, Dr. Carone returned Dr. Roggli's report to Dr. Roggli with instructions to forward the report to Daniel Childs, plaintiff's co-counsel.

Defendants contend that they are entitled to access to the test results and procedures due to the uniqueness of the evidence, pursuant to Rules 26 and 35 of the Federal Rules of Civil Procedure. Defendants contend that there are exceptional circumstances.

Plaintiff opposes defendants' motion to compel, stating that defendants had the opportunity to test a greater sample of tissue. Plaintiff contends that defendants had 8 pieces of tissue to test just as plaintiff did. Plaintiff contends that Dr. Roggli is a non-testifying expert and Rule 26(4)(B) denies discovery of facts and opinions from non-testifying experts.

Rule 26(b)(4)(B) provides discovery of facts known and opinions held by experts, otherwise discoverable under the provisions of subdivision (b)(1) of this rule and acquired or developed in anticipation of litigation or for trial, may be obtained ... as follows:

> A party may discover facts known or opinions held by an who has been retained or specially employed

> by another party in anticipation of litigation or preparation for trial and who is not expected to be called as a witness at trial, only as provided in Rule 35(b) or upon a showing of exceptional circumstances under which it is impracticable for the party seeking discovery to obtain facts or opinions on the same subject by other means.

The rule "has been construed to require as an exceptional circumstance, a basic lack of ability to discover the equivalent information on the part of the party moving for discovery." Eliasen v. Hamilton, 111 F.R.D. 396, 401 (N.D.Ill. 1986), citing Delcastor, Inc. v. Vail Assoc., Inc., 108 F.R.D. 405 (D.Colo.1985). The question then becomes what constitutes the "same subject," or "equivalent information." Rule 26(b)(4)A)(ii) in not limited to documents relied upon by the testifying expert in reaching opinions. Id. Documents considered but rejected by the testifying expert in reaching opinions may be equally necessary for effective cross-examination; and in fact, the documents considered but rejected by the expert trial witness could be even more important for cross-examination than those actually relied upon by him. Id.

In choosing between the competing standards,[1] the courts have looked to policy considerations. David S. Day, Discovery Standards for the Testimonial Expert Under the Federal Rule of Civil Procedure 26(b)(4): A Twentieth Anniversary Assessment, 133 FEDRDTP 209 (1990).

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[1]The relevance standard or the more restrictive test.

The primary policy consideration underlying subdivision (A) (ii) is the concern that a discovering party should have access to adequate information to permit effective cross-examination and rebuttal of an adversary's testimonial expert. Id. To the extent that a party will speak through its testimonial expert, Rule 26(b((A)(ii) should provide full discovery to enable the discovering party, with basic diligence, to prepare to represent the party's interest effectively. Id. Two commonly identified situations which give rise to exceptional circumstances are: (1) "changed circumstances" where it is impossible for the discovering party to obtain or replicate expert discovery on the contested issue; and (2) "impracticability, " the replication of the contested item or material is physically feasible, but the costs would be socially and judicially prohibitive. David S. Day, Expert Discovery in the Eight Circuit: An Empirical Study, 122 FEDRDTP 35 (1989).

In the case sub judice, plaintiff was given 8 pieces of lung tissue to analyze and defendants were given 8 pieces of lung tissue to analyze. The samples were taken from different places in the left lung. Dr. Frederick D. Pooley did not find cricodolite asbestos and Dr. Schwartz found 2 fibers. Dr. David Schwartz testified in his deposition that he used an ashing procedure that is used for bulk sample analysis of building materials to analyze the lung tissue for mineral content. Dr. Schwartz further testified that there are alternative procedures for tissue analysis to determine fiber content. Although Dr. Schwartz admitted that he used high temperature and acid he testified that high temperatures and acid can affect the chemistry of asbestos and other materials thereby making chemical analysis or x-ray analysis inconclusive. Dr. Schwartz also testified that low temperature plasma ashing or chemical digestion are often described as the preferred methods for preparing lung tissue for transmission electron microscope (TEM) analysis.

Additionally, in his deposition, Dr. Schwartz testified that if fiber analysis of the lung tissue had not found any crocidolite fibers he could not come to a conclusion about whether there was crocidolite in the total lung tissue. Dr. Schwartz stated,

> "The methodology is statistical, by the fact that you are looking at a small percentage of the total amount of material at any given observation time and coming to conclusions that may not be correct. Because of that small amount, the statistics means variation, means deviations from and around a norm value. And the absence of anything in a statistical examination can never be a zero" or a "not present." The presence of something is, it is present. The numbers are then statistically arguable. The absence of anything is never a negative in a statistical study of this nature."

Dr. Schwartz testified that "portions of the lung vary in density and therefore would vary in dry weight, because lung as not a homogenous tissue." Dr. Schwartz testified that Mr. Fred Love, his analyst, saw crocidolite asbestos in one of the eight samples. According to Dr. Schwartz there are a lot of reasons why asbestos would not be in all tissue samples tested, i.e. the lungs vary. Dr. Schwartz stated that: for example, if you had "a million red balls and 1,000 white balls and you didn't know where those red balls were and you blindly went into the pile to pick it out, you can still pick out 7, 8, 10, 15 times and still not get a red ball and assume, well, there's none there, until you did the experiment or the data collection a large enough number of times."

Therefore, we conclude that since portions of the lung vary in density and the lung is not a homogenous tissue, in the instant case, there is a showing of exceptional circumstances. Asbestos

is not uniformly dispersed throughout the lung; each sample is unique thereby making each analysis unique. Additionally, alternative methods were used to analyze Mr. Braun's lung tissue for asbestos and results varied based upon methodology. For example, according to plaintiff, both Dr. Pooley and Dr. Schwartz based their opinions on examining lung tissue for asbestos fibers using TEM and energy dispersive x-ray analysis (EXDA), but the difference in their protocols is that Dr. Schwartz used an ashing method to remove the organic tissue and Dr. Pooley used a bleach digestion method. Defendants contend that Dr. Schwartz concedes that his method's use of high temperatures and acid most likely affected the chemistry (i.e. the chemical identification) of any asbestos found, thus likely resulting in inconclusive results. Thus, in the instant case, it is impracticable for the party seeking d iscovery to obtain facts or opinions on the same subject or equivalent information by other means, since plaintiffs were given 8 different samples of lung tissue from the left and upper and lower lobe to analyze and defendants were given 8 similar samples of lung tissue from the left and upper and lower lobe to analyze.[2]

CONCLUSIONS

For the foregoing reasons, defendants, motion to compel plaintiff to produce any and all reports, documents and tangible evidence relating to testing performed by Dr. Victor Roggli on Norman Braun's lung tissue is granted.

ENTER
Blanche M. Manning
United States District Court Judge

DATED: Jan 10, 1996

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2 Dr. Carone reported: "Two specimens (A and B)

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were taken from each lobe (upper and lower) which included a peripheral location (P) and a central location (C). Specimens were taken to avoid consolidated or tumor-bearing regions. Each specimen was then bisected into its respective peripheral portion (subpleural) and central portions resulting in a total of 8 specimens. Each specimen was weighed and measured. A section of about 1.5 x 3 x 0.4 cm was taken from each of the 8 specimens for histological evaluation. The remainder of each of the 8 specimens was then bisected along its longest axis into 2 approximately equal parts to create a duplicate set of the 8 specimens. One set of 8 specimens was sent to Dr. V.L. Roggli, Department of Pathology, Duke University, Durham, N.C., for fiber analysis by light microscopy, scanning electron microscopy and energy dispersive x-ray analysis. The duplicate set of 8 Braun specimens are being held for further designation."

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

SARALEE BRAUN as Executor of the Estate of NORMAN BRAUN, Deceased, and Individually,

Plaintiff,

v. No. 94C976

LORILLARD, INC., a New York Corporation and HOLLINGSWORTH & VOSE CO., a Massachuesetts Corporation,

Defendants.

ORDER

This matter is before the court on the motion of plaintiff to bar any reference to the existence and to the work of non-testifying experts.

Plaintiff contends that non-testifying experts are protected from discovery under Fed.R.Civ.Pro. 26(b)(4)(B). According to plaintiff, to allow testimony regarding the use of a non-testifying expert would subvert and circumvent the purpose of Rule 26 (b) (4) (B) and even if relevant the evidence should not be admitted. Plaintiff contends that there may be reasons why a party may not use an expert as a witness. For example, if an expert botches the evaluation or uses an unaccepted methodology, a litigant should not be expected to live with only

that evaluation and divulge the results for use by his opponent, citing Dominquez v. Syntex Laboratories, Inc., 149 F.R.D. 158, 163 (S.D. Ind. 1993).

For the foregoing reasons, plaintiff's motion to bar any reference to the existence and work of non-testifying experts is granted with the exception of Dr. Roggli.

ENTER

Blanche M. Manning
United States District Court Judge

DATED: Jan 10, 1996

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION

SARALEE BRAUN as Executor of the Estate of NORMAN BRAUN, Deceased, and Individually,

Plaintiff,

v. No. 94C976

LORILLARD, INC., a New York Corporation and HOLLINGSWORTH & VOSE CO., a Massachuesetts Corporation,

Defendants.

ORDER

This matter is before the court on the motion of defendants, Lorillard, Inc. ("Lorillard") and Hollingsworth & Vose Co. ("H&V") for summary judgment.

BACKGROUND

Norman Braun started smoking Kent cigarettes in 1957 while attending college in Pittsburgh, Pennsylvania. Braun quit smoking in 1963. In 1984 Braun moved to Chicago and in April 1993 he was diagnosed with mesothelioma. Plaintiff Norman Braun and his wife Saralee Braun filed suit on February 15, 1994. On February 27, 1995 Braun died of mesothelioma.

According to plaintiff's complaint, as a direct and proximate cause of defendant Lorillard's fraudulent misrepresentation, Mr. Braun smoked Kent cigarettes, thereby inhaling smoke contaminated with crocidolite asbestos, which caused him to develop mesothelioma, a cancer of the lining of the lung and he suffered great pain and mental anguish, and was unable to attend to his usual occupation and activities and has been, and was required to spend large amounts of money for medical care.

Plaintiff's complaint seeks compensatory damages in excess of $1,000,000, plus punitive damages in excess of $1,000,000, plus the cost of suit, for H&V intentionally including crocidolite asbestos as an ingredient of the asbestos-containing filter material for Kent cigarettes at the request of Lorillard. Plaintiff alleges that both Lorillard and H&V knew or should have known that Kent cigarettes would be distributed, sold and advertised nationally; crocidolite asbestos is known to cause mesothelioma, a cancer of the lining of the lung; at all times while Norman Braun smoked Kent cigarettes, he did not know, nor should he have known, of the nature and extent of the danger to his lungs, respiratory system and other body systems which would result from his exposure to asbestos dust emanating from defendants' asbestos-containing products; defendants were negligent in that they manufactured, produced, sold and supplied, either directly, or indirectly, asbestos-containing products to which Mr. Braun was exposed, and which defendants knew, or in the exercise of reasonable diligence should have known were defective, dangerous, hazardous, poisonous and otherwise highly harmful to the human respiratory system; defendants continued to manufacture, sell and distribute asbestos containing Kent cigarettes for approximately two years after learning that asbestos from the micronite filter was contaminating smoke from Kent cigarettes; defendants' acts or omissions were wilful,

wanton, and reckless disregard for the safety of human beings; and as a direct and proximate cause of defendants, wilful, wanton or reckless conduct Mr. Braun developed mesothelioma and died and his survivors have been deprived of his society, services, companionship and support.

Defendants concede that Lorillard manufactured, distributed, and sold Kent cigarettes which at that time were made with asbestos containing filter material from 1952 to 1957. Defendants further concede that the filter material for the cigarettes was sold to Lorillard by H&V Specialties Co., Inc., a predecessor of H&V.

DISCUSSION

The first question is whether this court should grant summary judgment because Dr. Schwartz, plaintiff's expert, lacks personal knowledge of whether the lung tissue actually contained crocidolite asbestos. The facts or data in the particular case upon which an expert bases an opinion or inference may be those perceived by or made known to the expert at or before the hearing. Fed. R. Evid. 703.

In the instant case, defendants argue that Dr. Schwartz's affidavit and testimony fail to establish that he has personal knowledge of whether there was crocidolite asbestos in the lung tissue of Mr. Braun. According to defendants, Dr. Schwartz's testimony makes it clear that he did not prepare or perform the analysis, review the tissue samples, conduct any qualitative or quantitative analysis, or even see, touch, or weigh the tissue at any time.

Plaintiff asserts that as codified in Rule 703, the most basic rule of expert testimony is that experts can opine based on data which they did not personally gather or observe, citing Ponder v. Warren Tool Corp., 834 F.2d 1553, 1557 (10th Cir. 1987);

and Christophersen v. Allied-Signal Corp., 939 F.2d 1106, 1110-1111 (5th Cir. 1991). Plaintiff also responded by attacking Dr. Pooley, defendants' expert witness. Plaintiff contends that based on the defendants' criteria, Dr. Pooley lacks sufficient knowledge to form an opinion of whether his laboratory examined Norman Braun's lung tissue. According to plaintiffs, Dr. Pooley received his tissue samples from defense counsel in an unmarked box and did not verify that it was Mr. Braun's lung tissue; thus, there is no chain of custody documentation from Dr. Pooley. Plaintiff therefore further asserts that, based upon the standard suggested by defendants, the court should refuse to accept the reliability of Dr. Pooley's conclusions.

This court finds that defendants' assertion that Dr. Schwartz's testimony is inadmissible because he does not have personal knowledge is not well-grounded in legal principles. An expert may express an opinion based on inadmissible hearsay evidence so long as that evidence is of the type reasonably relied on by experts in the particular field. U.S. v. Smith, 964 F.2d 1221, 1223 (D.C. Cir. 1992), citing U.S. v. Wright, 783 F.2d 1091, 1100 (D.C. Cir. 1986). The guarantee of trustworthiness is that it be of the kind normally employed by experts in the field. 3 Jack Weinstein & Margaret Berger, Weinstein's Evidence 1 703[03]. The expert is assumed, if he meets the test of Rule 702, to have the skill to properly evaluate the hearsay, giving it probative force appropriate to the circumstances. Id.

There are three ways an expert can learn facts on which he bases his opinion: First, the expert may gather information by means of first hand observation. Second, the expert may base his or her testimony upon facts presented at trial, either in the form of hypothetical questions propounded by counsel or evidence before the court. Third, the expert may rely on facts outside the record and not personally observed, but the kind

upon which experts in his or her field reasonably rely in forming opinions. Ponder, 834 F.2d 1553, 1557), citing Ramsey v. Culperrer, 738 F.2d 1092, 1101 (10th Cir. 1984); and Accord Mannino v. International Mfg. Co., 650 F.2d 846, 852 (6th Cir. 1981). Thus, this court concludes that since Dr. Schwartz is designated as an expert witness, personal knowledge is not required for admissibility.

The second issue is whether Dr. Schwartz's testimony will assist the trier of fact to understand the evidence or to determine a fact in issue. If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise. Fed. R. Evid. 702. The adjective "scientific" implies a grounding in the methods and procedures of science. Daubert v. Merrell Dow Pharmaceuticals, Inc., 113 S.Ct. 2786, 2795, 125 L.Ed.2d 496 (1993). Summarily, the word "knowledge" connotes more than subjective belief or unsupported speculation. Id. That "applies to any body of known facts or to any body of ideas from such facts or accepted as truths on good grounds." Id. It would be unreasonable to conclude that the subject of scientific testimony must be "known" to a certainty; arguably, there are no certainties in science. Id. However,

> in order to qualify as "scientific knowledge," an inference or assertion must be derived by the scientific method. Proposed testimony must be supported by appropriate validation--i.e., "good grounds" based on what is known. In short, the requirement that an expert's testimony pertain to "scientific knowledge" establishes a standard of evidentiary reliability. Porter v. Whitehall

Laboratories, Inc., 9 F.3d 607 (7th Cir. 1993), citing Daubert, 113 S.Ct. 2786.

Daubert requires that the district court undertake a two-step inquiry. O'Connor v. Commonwealth Edison Co., 13 F.3d 1090, 1106 (7th Cir. 1993). Daubert first "directs the district court to determine whether the expert's testimony pertains to scientific knowledge. Id. This task requires that the district court consider whether the testimony has been subjected to the scientific method; it must rule out subjective belief or unsupported speculation. Id., citing Porter, 9 F.3d 607, 613; and Daubert, 113 S.Ct. 2786, 2795. Second, the district court must "determine whether the evidence or testimony assists the trier of fact in understanding the evidence or in determining a fact in issue. Id. That is, the suggested testimony must f it the issue to which the expert is testifying. Id.

Whether a witness is qualified as an expert can only be determined by comparing the area in which the witness has superior knowledge, skill, experience, or education with the subject matter of the witness's testimony. Russell v. Wendt, 929 F.2d 703 (7th Cir. 1991), citing Carroll v. Otis Elevator Co., 896 F.2d 210, 212 (7th Cir. 1990). The decision to admit expert testimony is committed to the broad discretion of the trial court and its determination will be affirmed unless it is manifestly erroneous. Sutzman v. CRST, Inc., 997 F.2d 291, 295 (7th Cir. 1993), citing Bob Willow Motors, Inc. v. General Motors Corp., 872 F.2d 788, 797 (7th Cir. 1989); and Carroll, 896 F.2d 210, 212.

Lorrillard asserts that Dr. Schwartz is unqualified to offer expert testimony on an analysis of Braun's lung tissue. Lorrillard contends that Dr. Schwartz does not have the appropriate skill, training, education, or experience to testify as an expert regarding lung tissue analysis because he is not

regularly engaged in the analysis of lung tissue for mineral content.

Defendants submit that in a deposition Dr. Schwartz testified that he: (1) has never performed an analysis on lung tissue; (2) has never performed qualitative or quantitative analysis of lung tissue for its mineral content; (3) has never performed the calculations necessary to determine the number of fibers according to the weight and volume of the specimen lung; (4) spends 99.9 percent of his time on administrative or marketing activities for his laboratory; and (5) did not employ a methodology (use of high temperature and acid) that has been shown to be appropriate for lung tissue analysis.

Plaintiff asserts that Dr. Schwartz is qualified to offer an opinion on the results of a transmission electron microscope (TEM) analysis for asbestos, particularly as it relates to examining material for the presence and quantification of asbestos. According to plaintiff, Dr. Schwartz has been the owner and president of STAT Analysis, an environmental testing laboratory that does primarily work on asbestos, lead, organic and inorganic analysis of soils, groundwater, and building materials, since 1988. Plaintiff contends that Dr. Schwartz has previously been employed as an expert witness, not only with regard to asbestos and building materials, but also as to assessment of the contamination of clothing exposed to asbestos. Examining material for asbestos, including for crocidolite asbestos, is a normal part of STAT Analysis' work. While lung tissue was unusual for STAT Analysis, plaintiff contends that Dr. Schwartz is well qualified to deal with lung tissue, as he is not only an electron microscopist, but also an expert on anatomy and biochemistry, holding a Ph.D. in the former and being a professor of the latter. Dr. Schwartz has been trained in gross anatomy, histology, and the quantification of lung structure. Dr. Schwartz has researched and published

on the analysis of lung tissue and the quantif ication of organic materials in the lung, and he holds a Bachelor of Science in Biology for the University of Illinois and a Ph.D. in anatomy from the Chicago School of Medicine. Dr. Schwartz has researched the degradation of various connective tissue proteins for the National Arthritis Foundation and tumor invasion mechanisms for the American Cancer Society. After receiving his Ph.D., Dr. Schwartz was employed in Northwestern University's Department of Biochemistry using an electron microscope. Furthermore, plaintiff asserts that Dr. Schwartz was an assistant professor in Northwestern's Biochemistry Department from 1976 to 1980 and since 1980, has been an assistant professor of biochemistry at Rush Medical School.

In his deposition Dr. Schwartz testified that his laboratory STAT Analysis was given 8 pieces of Mr. Braun's lung to analyze: crocidolite asbestos was found in one sample; the other 7 samples had none. Dr. Schwartz testified that his analyst, Fred Love, used the ashing procedure that is used for bulk sample analysis of building materials as recommended by the United States Environmental Protection Agency (USEPA). According to Dr. Schwartz, he does not know for a fact but he presumes he could reproduce the results of the analysis using the same technique. Dr. Schwartz testified that it was a valid observation of crocidolite f iber that the analyst observed. Dr. Schwartz said the observation of crocidolite fibers was with scientific certainty. The analyst was instructed by Dr. Schwartz to look at 10 to 20 grid openings per tissue; 10 being the standard in the industry. Dr. Schwartz testified that others provided him with results of analysis they conducted of Mr. Braun's lung tissue. According to Dr. Schwartz, Dr. Pooley conducted the analysis of Mr. Braun's lung that he was provided.

In the case sub judice, the Daubert standard for expert

testimony has been met. Dr. Schwartz's theory or technique on analysis of Mr. Braun's lung tissue for crocidolite asbestos is scientific knowledge that can or has been tested; and it is subject to peer review. Publication is but one element of peer review and is not a sine qua non of admissibility; it does not always correlate with admissibility. Daubert, 113 S.Ct. 2786, 2797. In some instances well-grounded but innovative theories will not have been published. Id. Additionally, this court has considered the known or potential error rate of Dr. Schwartz's analysis based upon his deposition. Thus, this court has made a preliminary assessment of whether the reasoning or methodology underlying Dr. Schwartz's testimony is scientifically valid and the reasoning or methodology properly can be applied to the facts in issue and concludes that Dr. Schwartz's testimony may very well assist the trier of fact to understand or determine a fact in issue. This court's preliminary determination may be modified depending on the testimony Dr. Schwartz offers at trial.

The next issue is whether when considering the entire record with all reasonable inferences drawn in favor of the non-moving party and all factual disputes resolved in favor of the non-moving party, the non-moving party has made a showing sufficient to establish any essential element for which it will bear the burden of proof at trial. The burden of establishing a lack of any genuine issue of material fact rests on the movant. Mass v. City of Naperville, 1995 WL 584403, (N.D. Ill. 1995), citing Oxman v. WLS-TV, 846 F.2d 448, 452 (7th Cir. 1988); and Jakubiec v. Cities Service Co., 844 F.2d 470, 471 (7th Cir. 1988).

Plaintiff contends that crocidolite fibers in the lungs have a half-life of about 5-6 years; this means that every 5-6 years, half of the fibers are cleansed from the lungs. Plaintiff asserts that since Mr. Braun was exposed to crocidolite from Kent

cigarettes from 1952-1956 or 1957, that means that before he died in 1995, the crocidolite in his lungs would have gone thr approximately 7 ½ lives . According to plaintiff, this means that in the 1950s, there would have been about 200 times more crocidolite in Braun's lungs, than were left in 1995. Therefore, Dr. Pooley's not finding any crocidolite fibers is consistent with there having been hundreds of millions of crocidolite fibers in Braun's lungs in the 1950's from smoking Kents.

Lastly, plaintiff asserts that in the opinion of Dr. Cugell, a specialist in pulmonary disease, Braun's mesothelioma was caused by his smoking Kent cigarettes with an asbestos filter; this alone, also creates a genuine issue of material facts as to whether asbestos from Kent cigarettes proximately caused Braun's death.

In his deposition statement, Dr. Schwartz testified that if fiber analysis of the lung tissue had not found any crocidolite fibers he could not come to a conclusion about whether there was crocidolite in the total lung tissue. Dr. Schwartz stated,

> "The methodology is statistical, by the fact that you are looking at a small percentage of the total amount of material at any given observation time and coming to conclusions that may not be correct. Because of that small amount, the statistics means variation, means deviations from and around a norm value. And the absence of anything in a statistical examination can never be a "zero" or a "not present." The presence of something is, it is present. The numbers are then statistically arguable. The absence of anything is never a negative in a statistical study of this nature."

Dr. Schwartz testified in his deposition that "portions of the lung vary in density and therefore would vary in dry weight,

because lung is not a homogenous tissue." In his deposition Dr. Schwartz testified that Mr. Love, his analyst, saw crocidolite asbestos in one of the eight samples and there are many reasons why it would not be everywhere, i.e. the lungs vary. Dr. Schwartz testified that for example, if you had "a million red balls and 1,000 white balls and you didn't know where those red balls were and you blindly went into the pile to pick it out, you can still pick out 7, 8, 10, 15 times and still not get a red ball and assume, well, there's none there, until you did the experiment or the data collection a large enough number of times."

Therefore, we conclude that when considering the entire record with all reasonable inferences drawn in favor of the plaintiff and all factual disputes resolved in favor of plaintiff, plaintiff has made a showing sufficient to establish essential elements for which plaintiff will bear the burden of proof at trial. Plaintiff has produced sufficient evidence to show that there is a dispute as to whether there was the existence of crocidolite asbestos in Mr. Braun's lungs at the time of his death from smoking Kent cigarettes from 1952 to 1963, which could have caused Mr. Braun's death.

CONCLUSIONS

For the foregoing reasons, defendants' motion for summary Judgment is denied.

ENTER

Blanche M. Manning
United States District Court Judge

DATED: Jan 10, 1996

THE COURT: Mr. Schoenfield, let me ask you this. You can tell me because I don't recall. I did listen to some of the testimony just a moment ago. I don't recall whether or not your witness -- well, let me not put the words in your mouth.

Let me ask you, what foundation have you laid for this testimony?

MR. SCHOENFIELD: Beyond his qualifications?

THE COURT: Beyond the qualifications.

MR. SCHOENFIELD: That as he ordinarily -- the foundation I've laid beyond the qualifications is that he decided on what methodology to use. He based that on a methodology that his laboratory routinely uses which comes from the United States Environmental Protection Agency concerning analyzing or concerning examining materials for the presence and type and number of asbestos fibers; that the person who normally prepares the samples and actually looks through the microscope is his analyst Fred Lov. Therefore he had Mr. Lov do that in this case.

That he had -- that Dr. Schwartz then had a conversation with Mr. Lov in which Dr. Schwartz inquired as to the morphological observations that Mr. Lov had made, and as to the results of, I'm not sure, maybe this didn't come out as clear as it should have, your Honor, and as to the results of the EDAX that Mr. Lov conducted. And maybe that I didn't bring that last part out as clearly as I might have. And that based upon --

THE COURT: What about -- is this methodology the type that is customarily relied upon in this type of -- with regard to this particular type of research?

MR. SCHOENFIELD: I'm not sure what you mean by this particular type of research, Judge.

THE COURT: Well, pertaining to the examination of lung tissue for asbestos fibers.

MR. SCHOENFIELD: There has not been testimony on whether the preparation they used was a typical means --

THE COURT: That's what's lacking.

MR. SCHOENFIELD: But, your Honor, that -- it doesn't have to be a typical means. It only has to be --

THE COURT: It has to be customarily relied upon.

MR. SCHOENFIELD: Your Honor, it only has to have a valid scientific basis, and this is a methodology which is used thousands of times to examine materials for lung tissue. I'm not sure that's the perfect analogy.

THE COURT: As I read Daubert, this is one of the requirements, that it must be customarily relied upon by the relevant scientific community, the methodology. Because it seems to me what you've elicited from this witness is the methodology that he determined should be used. But whether or not that is the methodology that is generally relied upon in the relevant scientific community is another issue, and I don't believe that that has been elicited from this witness.

MR. SCHOENFIELD: I don't think that it's appropriate to define the relevant scientific

community as only those who are examining lung tissue for asbestos.

THE COURT: Well, not necessarily lung tissue. Let me just expand upon that. I believe this witness has done research with and studies with respect to asbestos in other contexts.

MR. SCHOENFIELD: Yes.

THE COURT: There has not even been any connection with the methodology used in that context.

MR. SCHOENFIELD: I thought there was, your Honor.

THE COURT: Well, maybe I missed it.

MR. SCHOENFIELD: Well, in the event that it wasn't as clear or as detailed as the court thinks it should be, I will expand upon that.

MR. OHLEMEYER: If I may, your Honor, there will be no evidence, no testimony from this witness that the methodology he employed is one that is recognized as an acceptable way to digest lung tissue arid analyze it under the microscope. What he will testify to is it's what we use when we take building material insulation and prepare it to look at it under the microscope.

You'll recall that when Dr. Carone submitted an affidavit to the court sponsored by the plaintiff's attorney, Dr. Carone stated that, "The commonly employed and standard method for extracting and quantifying asbestos fibers, asbestos fibers from pulmonary tissue, impose the principle of digestion of lung tissue in domestic bleach or a chemical digestion." That is what the evidence will be, the way -- that is the way you prepare lung tissue to analyze it under the microscope.

This witness will concede that he consulted no authority, did no research, consulted no literature to determine what the acceptable or standard way to prepare lung tissue, not insulation or ceiling tile, for TEM analysis was. And additionally, we have no information that Dr. Lov knew how to do that, did that, had ever done it before.

That is exactly the lack of foundation that this was done in a manner reasonably relied upon by other experts in the field for what this witness is trying to testify to. So separate and apart from his qualifications under 702, there's a 703 objection which I think your Honor has properly raised, and I think should exclude this witness from this opinion.

MR. SCHOENFIELD: There's two points. First is, the relevant scientific community as we were just discussing is not limited to lung tissue. The second point, your Honor, is that the difference in --

THE COURT: Will that witness be able to testify to that?

MR. SCHOENFIELD: Yes.

THE COURT: Because at this point my concern is exactly as Mr. Ohlemeyer has phrased it; although I did concede that conceivably if the witness is able to somehow show that the methodology that he employs with respect to other substances, other than lung tissue, it may be relevant. I don't know.

But I think in terms of just threshold determinations, I'm not convinced that at this point, I am not convinced that this witness' testimony has properly laid the foundation to elicit the opinion that you have just elicited which may be stricken.

Now, I'll certainly allow you an opportunity to attempt to lay a better foundation. But at this point, and certainly I disagree with Mr.

Ohlemeyer that Fred Lov's statements are hearsay because the jury will be given a limiting instruction that they are not to consider it for the facts asserted but rather just for the fact that this doctor relied upon it and considered it in making his -- in formulating his opinion.

But if you think you can lay a better foundation, Mr. Schoenfield, I will allow you that opportunity.

MR. SCHOENFIELD: Yes, Judge.

MR. OHLEMEYER: Your Honor, if I may, and perhaps we can have an offer of proof or do it outside the presence of the jury.

fibers in lung. It is not a homogenous tissue. No one place necessarily looks like another place in the lung.

MR. SCHOENFIELD: Can I have just a moment, your Honor?

THE COURT: Certainly.

(Brief pause.)

MR. SCHOENFIELD: Your Honor, before I finish, before I decide on finishing my direct, can we see the court at sidebar for a clarification so I understand the basis of the rulings?

THE COURT: Lack of foundation.

MR. SCHOENFIELD: I was hoping to understand a more specific basis, your Honor. In light of all the discussions, I'm not quite sure.

THE COURT: Can't we address that later, counsel?

MR. SCHOENFIELD: Well, if we address it now, I might be able to ask further questions, your Honor. That was the reason for my request.

(Discussion had at sidebar on the record.)

MR. SCHOENFIELD: Your Honor, with all the discussions and arguments about customary involvement, scientific communities, and so forth and so on, I'm unclear as to the basis of your ruling. And obviously it's been somewhat of a close call in your Honor's mind based on these discussions. I'm trying to understand what the bottom-line point is as far as the foundation really goes.

THE COURT: Well, let me just ask you this, counsel. What is it that you would like to get

into that you think my ruling precludes you from doing? Because as I indicated, it's a lack of a foundation. That's the basis of the ruling.

MR. SCHOENFIELD: I want to get into his opinion that crocidolite fibers were present in Mr. Braun's lung tissue.

THE COURT: But that was the subject matter of the opinion I thought you were attempting to elicit from him which I precluded you from doing.

MR. SCHOENFIELD: Yes, that's right, your Honor, and I thought I was answering the question. And the other opinion that I want to get into is a secondary opinion.

THE COURT: A what?

MR. SCHOENFIELD: A secondary opinion as to the range of number of fibers that he expects. But if you're not going to let me get the opinion that they're present, I can't do that.

And I just don't understand the court's ruling because he has testified that what he used is a scientifically accepted method for the purpose of getting rid of organic materials to find the presence and type of asbestos fibers, and that to the extent that there may be grounds to criticize the use of that method, their concern whether they're going to find the right number of fibers, have nothing to do with whether you're going to find it present or not. He's testified specifically that what he did did not create a false positive.

THE COURT: But he's also testified that he really didn't have any knowledge of the methodology that should be employed, and he still doesn't have any information regarding the methodology that should be employed with respect to lung tissue. It seems to me this witness knows absolutely nothing about analyzing lung tissue and asbestos fibers.

MR. SCHOENFIELD: He knows about analyzing --

THE COURT: And additionally he acknowledged that the methodology that he used -- he just -- he had no answers. He didn't know one way or the other.

MR. SCHOENFIELD: What they're referring to is the bleached digestion method, and he is familiar with that. And he explained -- he compared that to the ashing method, and he explained that the method he used is appropriate and is accepted for dealing with getting rid of any organic material in order to determine the presence of asbestos fibers, which is the opinion that I'm seeking to elicit.

Now, if most people use bleached digestion because they're less likely to degrade the asbestos fibers and therefore it's the, quote unquote, customary preferred method, if we assume that for a moment, then we used a worse method for being able to find fibers, but we found them. Now, that's not a valid criticism in the context of this case.

MR. OHLEMEYER: But your Honor, the point is, you shouldn't and we shouldn't and the jury shouldn't assume anything. He has to lay the foundation. And this witness couldn't have been clearer that he has no information he can give us on digestion.

THE COURT: I'm convinced that my ruling is right, counsel. And somebody certainly at some point in time may second guess me; but at this point, I stand by the ruling. The objection will be sustained.

MR. OHLEMEYER: Thank you, Judge.

MR. McELANEY: Your Honor, could you instruct the jury to disregard all of his testimony from the qualifications to the questions regarding Roggli? Because he did testify to --

they did hear some stuff about crocidolite.

THE COURT: I thought I -- didn't I strike that?

MR. HARRIS: Yeah, but they don't understand what that means.

MR. SCHOENFIELD: Your Honor struck the opinion and that's the only thing that you're saying there is not a foundation for.

THE COURT: I struck the opinion.

(After sidebar.)

MR. SCHOENFIELD: Thank you, Dr. Schwartz. I have no further questions at this time.

THE COURT: Cross-examination, Mr. Ohlemeyer?

United States Court of Appeals

For the Seventh Circuit
Chicago, Illinois 60604
June 14, 1996

Before
Hon. Richard A. Posner, Chief Judge
Hon. Ilana Diamond Rovner, Circuit judge
Hon. Terence T. Evans, Circuit Judge

SARALEE BRAUN, individually and as Executor of the estate of Norman Braun, deceased,
Plaintiff-Appellant

No. 95-4094 **v.**

LORILLARD INCORPORATED and HOLLINGSWORTH & VOSE COMPANY,
Defendants-Appellees.

Appeal from the United States District Court for the Northern District of Illinois, Eastern Division.
No. 94 C 976
Blanche M. Manning, judge.

ORDER

On May 31, 1996, plaintiff-appellant filed a petition for rehearing with suggestion for rehearing en banc. All the judges on the original panel have voted to deny the petition, and none of the active judges has requested a vote on the suggestion for rehearing en banc. The petition is therefore DENIED.

For instance, paper fibers or synthetic fibers are often present in building materials as the main component of the material, paper probably being the most common. It's an organic material just as tissue is. It's based on carbon. And generally when you're faced with removal of organic material, ashing is a preferred procedure.

Q. With regard to coming to an opinion about whether asbestos fibers are present in lung tissue, could -- let me start that question over again if I may. I'm going to ask you a narrow question, Doctor. With regard to an opinion of whether crocidolite asbestos fibers are Present in lung tissue, would the use of the ashing method in preparing the material create any risk that you're going to think that you see crocidolite when there is no crocidolite there?

MR. OHLEMEYER: Objection, your Honor. Lack of foundation.

THE COURT: I will allow the answer if you can understand the question.

THE WITNESS: Yes. The answer is it would have just the opposite effect. If anything, the use of ashing would cause the loss of certain types of asbestos fibers. It would not create fibers that were present before we started.

BY MR. SCHOENFIELD:

Q. So the use of the ashing material could not create what's known as a false positive for the presence of asbestos?

A. No, not to any reasonable possibility.

Q. And what is a false positive?

A. That is saying in this case something is crocidolite when it is not.

Q. Now, once the sample is under the microscope and is being viewed to determine the presence or absence of crocidolite, does it make any difference whether the material that the sample came from was air or water or lung tissue or building material in terms of examination for morphology and examination by EDAX that you explained earlier?

A. No, it makes no difference.

Q. Now, in this case, did you have Mr. Lov take his usual role in terms of how things are done in your laboratory?

A. Yes.

Q. And in this case, did you take your usual role in terms of how things are done in your laboratory?

A. Yes.

Q. Is there in effect a chain of command in your laboratory?

A. Yes.

Q. Where are you and Mr. Lov in that chain of command?

A. Fred reports directly to me in these cases.

Q. And what, if any, role do you have in these cases in terms of interpreting the results?

A. I ask Fred if he had confirmed that these fibers were

Sustained.

BY MR. SCHOENFIELD:

Q. Dr. Schwartz, you're aware of what a bleached digestion method to remove organic material is?

A. Yes.

Q. How are you aware of that?

A. The use of that along with other agents is common in preparation of organic -- of specimens containing organic material. It's a method of digestion using caustics.

Q. To come to an opinion regarding whether crocidolite asbestos fibers are present in lung tissue, would it make any difference whether you used the ashing method that you had used in this case or whether the bleached digestion method was used?

A. In fact, I believe it would be slightly harder to find crocidolite fibers using the ashing method.

Q. Why would it be harder to find crocidolite fibers using the ashing method?

A. Because with high temperatures, even in neutral solutions or near neutral solutions, there's always a chance of loss of chemical content of materials and therefore less likelihood to find something and be able to verify it as such.

Q. So to the extent that the ashing method created a risk of an inaccurate result, are you saying that it created a risk of a false negative not finding the fibers as opposed to a false positive thinking you found the fibers when they weren't there?

A. Exactly. it's a risk of losing fibers and creating a negative result.

Q. And can you tell us whether or not using the ashing method that you used would be a generally accepted methodology to remove organic material from a sample in order to then determine whether there was crocidolite asbestos fibers present in that material under a transmission electron microscope?

A. It would be generally acceptable.

Q. And how do you know that?

A. From my readings, review of the literature and general knowledge of chemistry.

MR. SCHOENFIELD: Your Honor, I believe I've laid a proper foundation to ask a question regarding an opinion as to the presence of crocidolite fibers in the tissue.

MR. OHLEMEYER: Same objection, your Honor, same grounds.

THE COURT: I'll sustain the objection.

BY MR. SCHOENFIELD:

Q. Dr. Schwartz, have you been made aware of the scanning electron microscopy results that Dr. Roggli's lab had in this case concerning Mr. Braun's lung tissue?

A. Yes.

Q. Do you have an opinion as to whether or not those results are determinative of whether there was crocidolite asbestos present in Mr. Braun's lung tissue?